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ABSTRACT

This food production, management, and services curriculum guide provides information needed by teachers. It begins with a list of the competencies and subcompetencies that are the essential elements and the sub-elements prescribed in the Texas Administrative Codes for Vocational Home Economics. Each chapter consists of teaching strategies. They are not intended to be used in any particular order, and multiple choices are provided. The 39 chapters cover the following topics: food service industry; careers; safety; emergency procedures; personnel, equipment, and facility sanitation; food sanitation; nutrition; special diets; tools and utensils; food preparation equipment; cold storage, serving, and cleaning equipment; food and supplies; food preparation techniques; beverages; cold sandwiches; salads; appetizers; soups and sauces; meat, poultry, and fish; eggs and cheese; cereals and pastas; vegetables and fruits; breads; desserts and cookies; cakes and icings; pastry and pies; basic service skills; sidework; styles and service; table service; counter and self-service; other types of food service; money handling; management responsibilities; cost control; buyers, receivers, and storeroom; finances and recordkeeping; personnel and production management; and merchandising and public relations. Other contents include the following: teaching aids for use in implementing the strategies; laboratory plans; chapter tests; and chapter test and activity book answers. An academic integration supplement accompanies the curriculum guide. It contains learning and evaluation experiences specifically designed to integrate mathematics, science, language arts, and social studies principles within the food production, management, and services course of study. (YLB)

Food Production, Management, and Services

Curriculum Guide

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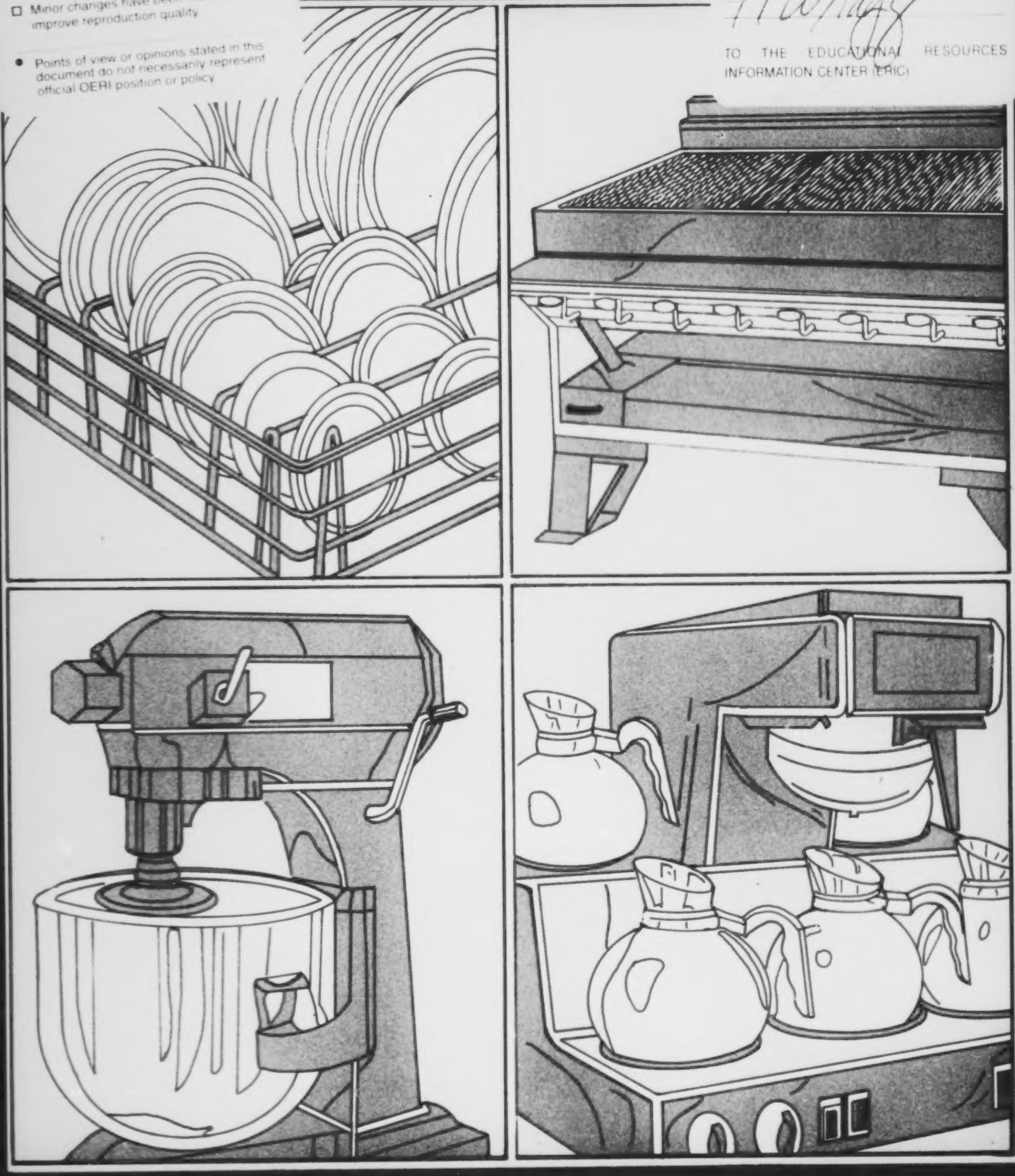

HOME ECONOMICS EDUCATION
TEXAS EDUCATION AGENCY, AUSTIN, TEXAS

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FOOD PRODUCTION, MANAGEMENT, AND SERVICES

CURRICULUM GUIDE

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PREFACE

Food service is big business. The food service industry is the nation's largest retail employer. It is also one of the fastest growing industries in the United States. Employment projections from the Bureau of Labor Statistics predict that the food service industry will employ 12.4 million workers by the year 2005, which would be a 33 percent gain from the number employed in the industry in 1990. Obviously, many new positions become available in food service each year. These positions are found in establishments such as restaurants, schools, institutions, and hospitals.

A multitude of career opportunities exist in the food service industry. Employment is available at a variety of levels ranging from beginning jobs, open to the inexperienced, to the highest specialist or managerial positions, requiring extensive experience and training. Employment opportunities and qualification requirements of employees vary according to location, type of business, and management style. Publications in the *Food Production, Management, and Services* series provide general information about various segments of the food service industry; some employment situations will fit the descriptions provided more closely than others. Therefore, hands-on experience and use of other resource materials are important components of the total training experiences needed by students entering the food service industry.

This Curriculum Guide complements other documents in the *Food Production, Management, and Services* set of materials. The set of instructional materials designed for the food service cluster includes the following four components:

- The *Reference Book* provides information needed by employees in the occupational area. Each chapter begins with Competencies to Develop and Objectives to Achieve. Within the text, italicized, bold-faced vocabulary terms are included with definitions or explanations. Illustrations of equipment and procedures aid student learning. At the end of each chapter, the content is summarized in Points to Remember, vocabulary terms are repeated in a list of Words to Know, and Questions for Review are provided for the student as a self-test. Technical terms and concepts may be located quickly by using the index.
- The *Curriculum Guide* provides information needed by teachers. Each chapter consists of teaching strategies for the teacher's use in the classroom. The teaching strategies are not intended to be used in any particular order, and multiple choices are provided. It is recommended that teaching strategies be selected to fit the local situation, level of students' abilities and experience, job situations, and time available. Teaching aids are included for use in implementing the teaching strategies. In addition, a test is provided for each chapter in the reference book, and answers are included for ease in evaluation of students' test answers. An answer key is also provided for the Activity Book.
- The *Student Activity Book* provides a variety of pencil-and-paper activities designed to reinforce the concepts presented in the reference book. Activities are provided for all objectives on the Objectives to Achieve lists and correlate with chapters in the reference book.
- The *Student Aid Book* presents essential information from the Reference Book at a third to fourth grade reading level. Simplified activities are also provided.

The *Food Production, Management, and Services* documents are part of an occupational education series which focuses on a broad range of employment opportunities. Each title in the series addresses one career cluster. The materials may be used for one or two years of instruction. Curriculum materials for other career clusters are also available from the Home Economics Curriculum Center, Texas Tech University, Box 41161, Lubbock, Texas 79409-1161.

TAC 75.83
FOOD PRODUCTION, MANAGEMENT, AND SERVICES

(k) Food production, management, and services (two-three units) shall include the following essential elements:

(1) Concepts and skills related to managing food service business responsibilities. The student shall be provided opportunities to:

(A) demonstrate how to function effectively in routine operations;
(B) demonstrate interpersonal qualities which lead to job success in food service careers;
(C) demonstrate techniques for maintaining good client relationships; and
(D) apply organizational goals, policies, and procedures.

(2) Concepts and skills related to nutrition. The student shall be provided opportunities to:

(A) classify nutrients according to their sources and functions;
(B) determine food choices to meet special dietary needs; and
(C) relate food preparation and service techniques to retention of nutrients.

(3) Concepts and skills related to equipment, safety, and sanitation. The student shall be provided opportunities to:

(A) apply federal, state, and local sanitation codes for food service establishments;
(B) apply safety and sanitation techniques in food handling, preparation, service, storage, and cleanup;
(C) inventory food supplies, utensils, and equipment;
(D) use large and small food service equipment as appropriate for prescribed task; and
(E) demonstrate appropriate maintenance of food service equipment and tools.

(4) Concepts and skills related to achieving quality standards when preparing a variety of dishes and products. The student shall be provided opportunities to demonstrate procedures for preparing beverages, appetizers and garnishes, salads, main entrees, fruit and vegetable dishes, desserts, and breads.

(5) Concepts and skills for coordinating various phases of meal planning, preparation, and service to ensure customer satisfaction. The student shall be provided opportunities to:

(A) point out how various food combinations are aesthetically pleasing;
(B) demonstrate ways to assist other employees during emergencies or rush periods;
(C) utilize work schedule so tasks are completed at prescribed times;
(D) demonstrate portion control and food/beverage service techniques;
(E) demonstrate holding and storing techniques for prepared food;
(F) apply techniques for welcoming guests and overseeing customer satisfaction; and
(G) demonstrate techniques for serving customers.

(6) Concepts and skills related to performance of various catering tasks. The student shall be provided opportunities to:

(A) outline procedures to follow in packing catering utensils and equipment for transport;
(B) describe techniques for transporting food to maintain quality; and
(C) describe the relationship between catering and in-house food preparation.

1

The Food Service Industry

COMPETENCIES TO DEVELOP

- Identify competencies needed to be an effective food service employee.

OBJECTIVES TO ACHIEVE

- Describe the food service industry.
- Describe the types of food service units.
- Point out advantages and disadvantages of food service work.

ASSIGNMENT

- Read Chapter 1 in the *Food Production, Management, and Services Reference Book.*

THE FOOD SERVICE INDUSTRY

TS1:1* Have students design a bulletin board or poster depicting statistics about the food service industry. Have students use facts from the Reference Book. KEY FACTS: The food service industry is one of the largest industries in the United States, the single largest employer of young people in the nation, and one of the nation's fastest growing industries.

TS1:2 Invite food service managers, members of your state restaurant association, and dietitians to participate on the panel. Ask participants to provide information on starting salaries, salary increases, job advancement opportunities, the average amount of tips collected, training available, number of people employed, advantages and disadvantages of food service jobs, and working hours in the food service industry.

TS1:3 Discuss changes in American life which have created an increased demand for food service. KEY QUESTIONS: How many meals per day does the average American family eat away from home? How does the number of working women affect the food service industry? Is the need for food service employees increasing or decreasing? What are the projections for food service jobs in the future?

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* TS 1:1 indicates teaching strategy, chapter 1, number 1.

TYPES OF FOOD SERVICE UNITS

TS1:4 Have students develop a chart comparing types of food service establishments in the community or within a specific area of a city. Include type, ownership, management structure, number of employees, type of employee training programs, advancement opportunities, incentive programs, benefits, and operating hours.

TS1:5 Use Teaching Aid 1, Restaurant Advertising, and discuss with students which type of food service unit each represents. Also discuss the criteria for classifying each type of food service unit.

TS1:6 Divide the class into small cooperative learning groups. Have students draw a card describing a type of food service establishment. Instruct each group to work together to develop a pantomime on that type of food service. Have students perform the pantomime while other groups try to identify the type of establishment portrayed. The group that identifies the greatest number correctly could be given a small award or a special privilege.

ADVANTAGES AND DISADVANTAGES OF FOOD SERVICE WORK

TS1:7 Lead students to brainstorm advantages and disadvantages of food service work. Use information from pages 4 and 5 in the Reference Book for discussion.

TS1:8 Have each student interview one food service employee regarding the advantages and disadvantages of working in food service. Compare the responses in class. KEY QUESTIONS: What did the persons employed in food service consider the major advantages? What did they consider the major disadvantages? Are there advantages and disadvantages in all jobs?

TS1:9 View Teaching Aid 2, Is Food Service For You? KEY QUESTIONS: What types of jobs are available? What benefits might be included? Are working hours flexible? How is advancement achieved? How can working hours be inconvenient? What contributes to pressure and fatigue? What is the pay like?

2

Food Service Careers

COMPETENCIES TO DEVELOP

- Identify competencies needed to be an effective food service employee.
- Describe personal qualities which lead to job success in food management, production, and services.

OBJECTIVES TO ACHIEVE

- Describe the two main areas of a food service operation.
- Identify food production, management, and service opportunities.
- Categorize food production, management, and service career opportunities as unskilled, semi-skilled, management, or related opportunities.
- Describe the experience, training, and\or education needed to qualify for specific food service careers.

ASSIGNMENT

- Read Chapter 2 in the *Food Production, Management, and Services Reference Book.*

AREAS OF FOOD SERVICE

TS2:1* Use Teaching Aids 3a and 3b, Front- and -Back of the House, to show differences in back-of-the-house and front-of-the-house jobs. KEY QUESTIONS: What kinds of jobs would be done in a traditional restaurant in the front? in the back? What kinds of jobs would be done in a fast food restaurant in the front? in the back? Which type of restaurant would be equipment centered in the back? Which type would be chef centered in the back?

TS2:2 Take students to tour a food service establishment. Ask students to identify the front-of-the-house and the back-of-the-house. Have them observe the specific jobs done in the front and the back of the house. NOTE: The school cafeteria could be visited if a learning tour is not feasible.

TS2:3 Divide the class into teams to play a game of charades. Have each team member draw a food service job title to act out. The other team must guess the job and identify the area of food service where the job would be performed (front- or back-of-the-house). Bonus points may be given if the team can also identify whether the job is a support, production, control, service, or management job. The team that correctly identifies the most jobs and has the most total points wins the game.

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* TS 2:1 indicates teaching strategy, chapter 2, number 1.

TS2:4 Have students diagram the types of jobs done in the front-of-the-house and those done in the back-of-the-house for both traditional and fast food operations. NOTE: This may be done as group work, an out-of-class assignment, or an evaluation device.

TS2:5 Discuss how the size of the operation, the menu, and the type of service can influence the staff needed. Give sample situations for the class to consider. Such as: a new restaurant will serve breakfast, lunch, and dinner and will average 50\100\150 customers, respectively, for each meal. The restaurant has table service and a menu with over eighty selections. What type of staff will be needed?

IDENTIFY FOOD SERVICE CAREER OPPORTUNITIES

TS2:6 Have the class view and discuss Teaching Aid 4, Restaurant Organization. Point out the structure of the circle. Ask students to identify which jobs would require more skill and which jobs would be entry level. KEY QUESTIONS: Which jobs pay better salaries? Which jobs require the most responsibility?

TS2:7 Bring classified ad sections from several major newspapers to class and have students find and count the ads for food service jobs. Count ads for other occupational areas and compare them to the number of food service jobs. Discuss how many jobs are available in each locale. How many are food service jobs?

TS2:8 Have the class view and discuss Teaching Aid 5, Opportunities for Advancement in Restaurant Positions. KEY QUESTIONS: Are there opportunities to advance in food service jobs? How rapidly can one expect to advance?

TS2:9 Have students break into three groups to summarize information regarding management jobs. Have one group report on supervision, one on mid-management, and the last on top management.

CATEGORIES OF FOOD SERVICE CAREER OPPORTUNITIES

TS2:10 Have students find and cut out classified ads for food service jobs. Have students develop posters categorizing the jobs into unskilled jobs, semi-skilled jobs, skilled jobs, and supervision\management jobs. Discuss the numbers of jobs available at each skill level.

TS2:11 Ask five students to the chalkboard. On the chalkboard have each student write one of the following categories: Unskilled, Semi-skilled, Skilled, Management, and Related Opportunities. On slips of paper write the titles of jobs that will fit under each category. Have each student draw a slip, go to the board, and write the job title under the correct category. Lead a class discussion on why each job was placed in a particular category.

EXPERIENCE, TRAINING, AND/OR EDUCATION NEEDED

TS2:12 Invite a food service employer to talk with the class about what the employer looks for when interviewing a prospective food service employee. Have students prepare questions prior to class for the speaker to answer. Have the speaker discuss what type of training is needed and where it can be obtained.

TS2:13 Invite the school counselor to speak to the class on the topic of where food service training can be obtained. Catalogs from post-secondary schools, vocational-technical centers, and colleges or universities that offer food service training could be displayed for students to examine.

TS2:14 Divide the class into three groups. Give each group a card with the name of a skill needed by a food service employee written on it. Examples include human relations skills, mathematics skills, and communications skills. Have each group then discuss what comprises those skills and why a food service employee needs them. Have each group present their ideas to the class.

3 Safety

COMPETENCIES TO DEVELOP

- Maintain high safety standards in food preparation, service, and cleanup tasks.

OBJECTIVES TO ACHIEVE

- Identify government regulations which apply to food service establishments.
- Summarize safety obligations of food service management and food service employees.
- Identify major causes of food service accidents.
- Outline procedures for preventing accidents in the food service facility.

ASSIGNMENT

- Read Chapter 3 in the *Food Production, Management, and Services Reference Book.*

SAFETY OBLIGATIONS OF FOOD SERVICE MANAGEMENT

TS3:1* Provide samples of restaurant licenses or permits for students to examine. Ask students to list the kind of information included on the sample permits. KEY QUESTIONS: Were the permits issued by the city, state, or federal government? How and when will the permit have to be renewed? Will inspection of the facilities be required for the renewal? Is a fee paid to obtain the permit? If so, how much does it cost? Is a permit required for the school lab if food is prepared and sold to the public? Where should permits be displayed?

TS3:2 Provide a list of safety rules and regulations for the food service laboratory to each student. Post additional copies in strategic locations around the lab. Lead a class discussion on and review the safety rules and regulations frequently with the class. Give pop tests on safety regularly or include safety questions when giving other quizzes or tests.

TS3:3 Name, appoint, or have students elect a safety committee for each food service lab that can assist in monitoring safety rules and regulations. Ask the committee to report any unsafe conditions or practices immediately. The committee appointment could be rotated like other lab duties or it may be set up on a semester basis.

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* TS 3:1 indicates teaching strategy, chapter 3, number 1.

MAJOR CAUSES OF FOOD SERVICE ACCIDENTS

TS3:4 Have students examine the food service lab or place of employment to identify any potential safety hazards. After completing their study of Chapters 3 and 4 of the Reference Book, have students review the original list and add or delete items to create an accurate list of safety hazards in the laboratory. KEY QUESTIONS: What potential hazards were identified? Can these potential hazards be avoided or diminished by an awareness of their existence? What could be done to reduce hazardous conditions in the lab?

TS3:5 Show an audiovisual on food service safety. Following the film, lead a class discussion on the cost of accidents in terms of time, money, and health. Ask students to identify the major types of accidents shown in the audiovisual.

UNSAFE ACTS AND UNSAFE CONDITIONS

TS3:6 Use Teaching Aid 6, Safety Hazards, to initiate class discussion on unsafe acts and unsafe conditions that lead to accidental burns, cuts, falls, and strains. Lead a class discussion on which situations on the teaching aid depict unsafe acts and which depict unsafe conditions.

ACCIDENT PREVENTION

TS3:7 Demonstrate safe gas range lighting techniques, safe and appropriate clothing for working in food service, and safe methods for handling pots and pans to prevent burns.

Burns

TS3:8 Have students work in groups to develop a bulletin board on one of the topics mentioned above or another safety aspect of food service accident prevention related to burns.

Cuts

TS3:9 Demonstrate safe knife use and care. KEY QUESTIONS: What should be done when a knife is falling from a table or cabinet? When and how should knives be washed? Are cuts more likely from dull or sharp knives? How should knives be carried?

TS3:10 Demonstrate how to handle and dispose of broken glass. Point out the particular hazards of using glass around ice dispensers or machines. KEY QUESTIONS: What must be done if a glass breaks in the ice machine? What might happen if slivers of broken glass were served to customers in iced drinks?

Falls

TS3:11 Lead a class discussion on the causes of falls and effective prevention techniques. Stress the particular hazards of running and horseplay among food service employees.

TS3:12 Have students develop guidelines for preventing falls in food service establishments. NOTE: These are listed in Chapter 3 (pages 16-19) of the Reference Book. Lead a class discussion on the guidelines.

Strains and Bruises

TS3:13 Demonstrate proper lifting techniques to the class. Point out the hazards of lifting with the back instead of with the legs and knees.

TS3:14 Demonstrate loading trays for weight balance and how to lift and carry loaded trays. Have students practice loading trays with unbreakable objects such as small sacks of flour, sugar, or beans. Then have them practice lifting and carrying the loaded tray using proper techniques.

TS3:15 Lead a class discussion on bruises: their causes and prevention techniques. KEY QUESTIONS: How can collisions with objects be avoided? How can collisions with other employees be avoided?

4

Emergency Procedures

COMPETENCIES TO DEVELOP

- Follow appropriate procedures in emergency situations.
- Complete accident reports and records.

OBJECTIVES TO ACHIEVE

- Describe appropriate procedures to follow in case of fire.
- Describe procedures for selecting and using a fire extinguisher.
- Classify fires according to type.
- Summarize procedures to follow for various weather related emergencies.
- Outline procedures to follow in medical emergencies.
- Classify burns according to severity.
- Name reports and records to complete following an accident.

ASSIGNMENT

- Read Chapter 4 in the *Food Production, Management, and Services Reference Book.*

FIRE SAFETY

TS4:1* Have students role play the correct procedure for reporting a fire as described on pages 21-22 of the Reference Book. Include scenes showing correct procedures for notifying a person of authority or getting help, calling the fire department, and alerting other employees and assisting customers to safety.

TS4:2 Have students find out what the fire escape plan is for their place of employment or school cafeteria. Ask them to diagram on paper the primary and secondary exits that may be used to evacuate people in case of fire. If no specific plan is in place, have the students design a fire escape route. With the employer's permission and approval, copies could then be posted in various parts of the building.

TS4:3 Have students look at floor plans of several different food service facilities and locate the exits. Have students practice developing primary escape routes. Alternate routes should also be planned in case an exit is blocked for some reason. NOTE: This might be used as an evaluation device.

TS4:4 Have students take part in surprise fire drills throughout the year. During the drills, follow correct procedures for safety activities such as putting out pretend fires, evacuating customers, and calling for help.

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* TS 4:1 indicates teaching strategy, chapter 4, number 1.

TS4:5 Have students simulate reporting a fire to the fire department. Be sure students include the following:

1. their name
2. the name of the business
3. the address of the business
4. the type of fire
5. the location of the fire in the business
6. the size of the fire

TYPES OF FIRES

TS4:6 Discuss the three elements of fire using Teaching Aid 7, The Three Elements of Fire. KEY QUESTIONS: How does removing one element affect the fire? What are some examples of each element? Are these elements present in a food service facility? Where?

TS4:7 Lead a class discussion on the three types of fire: Class A–wood, paper, rubbish; Class B–gas, grease, other liquid; and Class C–live electrical equipment. Have students suggest ways of putting out each type of fire by removing one of the three elements of fire. KEY QUESTION: Where might each of these types of fires occur in a food service facility?

TS4:8 Have students write a paper describing several methods for controlling a particular type of fire. NOTE: You may wish to let students select the type of fire they wish to write about or you may want to assign the topics. This may be used for an out-of-class assignment.

TS4:9 Demonstrate how to put out small grease fires without using a commercial fire extinguisher. Show how the use of soda or salt, a fire blanket, or putting a lid on a pan will smother a grease fire. KEY QUESTIONS: Where are soda and salt kept in the food service facility? When should each method be used?

TS4:10 Have each student draw a card with a type of fire written on it. Students should be able to explain correct procedures for extinguishing the fire without the use of a fire extinguisher. NOTE: This strategy may be used as an evaluation device or it could be conducted as a game in class with a small award to the team giving the most correct answers.

TYPES OF FIRE EXTINGUISHERS

TS4:11 Divide the class into seven groups, and assign each group a different type of fire extinguisher. Give each group at least one copy of Teaching Aid 8, Fire Extinguishers. Ask groups to study the information explaining their assigned type of fire extinguisher, its use, contents, and operation techniques, and then present and explain the information to the class.

TS4:12 Invite the local fire department to demonstrate the correct use of several types of fire extinguishers and conduct discussion on fire safety. If possible, let each student actually hold and use a fire extinguisher under the supervision of the firefighters.

PROCEDURES FOR WEATHER EMERGENCIES

TS4:13 Have students determine the areas of the building in which they work that would be the safest during a weather emergency. Then, have each student make a plan for directing customers to the safe areas in the event of a tornado.

TS4:14 Have students make a safety check of the food service establishment where they work. Are exits clearly designated and well-lighted? Are fire extinguishers or automatic devices available and checked regularly? Does the employer have an evacuation plan for the business? Do all employees know emergency procedures for fire and weather-related emergencies?

TS4:15 Ask one or two students to contact the local television or radio stations or the National Weather Service to find out what type of attention alert signal is used in the local area. Have them report to the class. KEY QUESTIONS: When is the system tested? Is it tested during severe weather? Why?

TS4:16 Lead a class discussion on the difference between a tornado watch and a tornado warning. Describe the emergency signals used in your area on television, radio, and other forms of media. Include the civil defense warning siren, if one exists.

TS4:17 Demonstrate the use of a National Weather Service weather radio. KEY QUESTIONS: When should this radio be used? What type signal does it use? Could it alert people who might be asleep?

TS4:18 Divide the class into several groups. Give each group a weather emergency situation that is typical of your area. Have students role play an emergency dealing with customers at the food service facility. Examples of weather related emergencies that might be portrayed include a tornado, hurricane, flash flood, and power failure.

TS4:19 Have students develop an evacuation plan for a food service facility. Remind them that such a plan should be posted for customers and employees to see (with the employer's permission). Be sure the plans include keeping exits barrier-free at all times. The plan should also include a role for all employees and supervisors in carrying out the plan.

PROCEDURES FOR MEDICAL EMERGENCIES

TS4:20 Invite the school nurse or an EMS (Emergency Medical Service) paramedic to demonstrate simple first aid procedures for emergencies involving cuts, burns, and falls. Have the nurse use a first aid kit and explain its contents. Ask students to locate the first aid kit at their place of employment.

TS4:21 Show students an audiovisual on food service emergencies. Have students note the procedures for dealing with the emergencies. KEY QUESTIONS: To whom should an accident be reported? Who should report the accident?

TS4:22 Duplicate and distribute copies of Teaching Aid 9, Simple First Aid. Have students study the material and compare the information to what they learned from the guest speaker or the film on first aid. Lead a class discussion on the comparisons in class. Ask students to add any additional first aid notes to the handout sheet that would be helpful in their job situation.

TS4:23 Divide the class into rescue teams. Have each team role play an emergency situation and the solution to the situation. Discuss each role play and correct any misinformation that has been portrayed. Examples of emergency situations include a person choking, a cut that is bleeding badly, an out-of-control fire in the school food service laboratory, a tornado warning, and a person who has fainted.

TS4:24 Discuss the warning signs a choking victim may display. Include the following: unable to talk, turning blue in the face, or clutching throat. Use Teaching Aid 10, The Heimlich Maneuver. Have an expert demonstrate the Heimlich maneuver for the class. If possible, have students practice on a mannequin (or, using care and under trained supervision, on each other) until they understand the procedure.

TS4:25 Duplicate and distribute copies of Teaching Aid 11, First Aid Supplies. Ask students to check the supplies in the first aid kit at their place of employment or in the school laboratory and compare those supplies to the recommended list. Discuss their findings in class. KEY QUESTIONS: Do supplies need to be added to the first aid kit? Does the kit include supplies that were on the list?

TS4:26 Have students view and discuss Teaching Aid 12, Emergency Procedures. Have students prepare a list of important emergency numbers to place by the telephone. Discuss the importance of remaining calm in an emergency and giving accurate, complete information when calling for assistance.

CLASSIFY BURNS

TS4:27 Have students study Teaching Aid 13, Treating Burns. Ask them to read the information given on first, second, and third degree burns and the required treatments. Discuss and cite examples of how each type of burn could occur in a food service job.

TS4:28 Invite an expert (nurse, doctor, or paramedic) to speak to the class about first aid for different types of burns. KEY QUESTIONS: Why is it important to recognize and identify the type of burn before administering first aid treatment? What may happen if incorrect treatments are used?

ACCIDENT REPORTS

TS4:29 View Teaching Aid 14, First Report of Injury, a sample injury report form with details similar to those required by the Occupational Safety and Health Act. Lead a class discussion on the types of information needed to complete this report form. KEY QUESTIONS: When should this kind of report be filled out? Who should complete the report?

TS4:30 If possible, obtain in-house accident report forms from several local restaurants. Have students practice filling out different types of accident report forms.

5 Personnel, Equipment, and Facility Sanitation

COMPETENCIES TO DEVELOP

- Follow federal, state, and local sanitation codes for food service establishments.
- Maintain acceptable standards in personal grooming and hygiene.
- Perform sanitation duties according to the cleaning schedule provided.
- Use sanitary procedures when washing, sanitizing, and drying pots, pans, and other utensils by hand.
- Use sanitary procedures when washing glassware, tableware, flatware, and utensils in the dishwashing machine.
- Inspect, sort, and store clean glassware, tableware, flatware, and utensils.
- Report signs of pests in the food service establishment.

OBJECTIVES TO ACHIEVE

- Summarize federal, state, and local sanitation codes for food service establishments.
- Demonstrate personal sanitation acceptable for food service employees.
- Explain procedures for washing, sanitizing, and drying pots, pans, and other utensils by hand.
- Outline procedures for washing glassware, tableware, and flatware in the dishwashing machine.
- Describe procedures for inspecting, sorting, and storing clean glassware, tableware, flatware, and utensils.
- Describe sanitation requirements for food service equipment.
- Cite procedures for pest control in the food service establishment.

ASSIGNMENT

- Read Chapter 5 in the *Food Production, Management, and Services Reference Book.*

FOOD SERVICE SANITATION

TS5:1* Have the class discuss the meaning of food service sanitation. Develop a consensus definition. Compare the class definition to the following: The creation and maintenance of conditions favorable to good health. KEY QUESTIONS: Were the most important concepts of food service sanitation covered in the class definition? Is the definition given above stated in more concise terms?

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* TS 5:1 indicates teaching strategy, chapter 5, number 1.

TS5:2 Lead a class discussion on the difference between clean and sanitary. KEY QUESTION: Can a surface be clean without being sanitary? Explain your answer.

SANITATION CODES FOR FOOD SERVICE

TS5:3 Invite a resource person from a restaurant or the health department to discuss the necessity of sanitary practices in handling food. KEY QUESTIONS: What laws or codes help promote sanitary practices in public eating establishments? What sanitation ordinances are in effect in your area? Which of these laws affect food service employees? What is the primary goal of a sanitation program?

TS5:4 Have students determine what laws or codes protect food served in your community or city. Have students report their findings in class. KEY QUESTIONS: What sanitation codes are in effect where you live? What penalties may be imposed if regulations are not met? Who enforces the codes or regulations? What does a sanitarian inspect?

TS5:5 Obtain information on local sanitation codes from the city or county department of health. Duplicate the information for class handouts. Review and discuss the codes that affect food service establishments. Lead a class discussion on what may happen if students do not follow sanitation rules in the food-service laboratory. What would happen if an employee failed to follow sanitation rules on the job?

TS5:6 Invite a sanitation inspector from the state, county, or city health department to explain the legal aspects of food service sanitation codes or regulations. Ask the speaker to conduct an inspection of the school foods laboratory explaining to the students what is looked for when inspecting a food-service facility.

TS5:7 Have students look at a sample inspection report for a food-service establishment (available from the State Department of Health). KEY QUESTIONS: What does an inspector check when inspecting a food-service facility? Why are these things checked? When are inspections conducted?

TS5:8 Have students conduct an inspection of the food-service laboratory using a list of sanitation codes obtained previously from the city or county health department. Make plans for improving sanitary practices in the laboratory, if needed.

PERSONAL SANITATION

TS5:9 Lead students to brainstorm to define personal sanitation. Discuss the definition and compare it to the following definition: "cleanliness resulting from the good grooming habits practiced by an individual." KEY QUESTIONS: What are grooming habits? What grooming habits are important for food service employees? Explain why grooming is important.

TS5:10 Have students view pictures of people who are well-groomed and people who are not well-groomed. Ask students to list the characteristics that describe a well-groomed person.

TS5:11 Have students use Teaching Aid 15, Script on Personal Appearance. Read the script as each picture is revealed. Have students summarize (orally or in a written paper) the elements that make up "personal appearance."

TS5:12 Duplicate Teaching Aid 16, Am I Well-Groomed? Before class, tape separate case studies to the bottom of each student's chair. Have each student remove and read the case study to the class, then respond to the study. NOTE: For students with low reading skills, you may read the case studies aloud or have them recorded on a cassette.

TS5:13 Ask students to write a paper describing personal sanitation habits that a food service employee should follow. Topics might include the following:

- not smoking on the job
- not touching face or hair
- not coughing, sneezing, or spitting near food or food containers
- washing hands every hour
- washing hands after blowing nose
- washing hands after using restroom
- bandaging any cuts or sores
- staying at home when you have an illness that is contagious

Additional personal sanitation habits may be added to this list.

TS5:14 Have students read the case studies included on Teaching Aid 17, Is This A Good Personal Habit? Have students write out answers for the questions that follow each case study. Discuss the answers in class. NOTE: This could be used for review, evaluation, or to reinforce the concepts of good personal habits for food service employees.

TS5:15 Lead a class discussion on the importance of handwashing for the food service employee. Have students use Teaching Aid 18, Sanitary Method of Handwashing. KEY QUESTIONS: Why is correct handwashing the most important personal sanitation task for a food handler? When should a food handler wash her or his hands?

TS5:16 Demonstrate the correct procedure for washing hands. View Teaching Aid 18, Sanitary Method of Handwashing. Have students work in pairs to practice and explain the correct procedure for handwashing.

TS5:17 Using information from Chapter 5 in the Reference Book as a guide, have students participate in a round-table discussion to cite hygienic practices which should be observed by food service employees. KEY POINTS: Wash hands in the proper lavatory; avoid smoking, spitting, coughing, or sneezing near food or food containers; never use fingers for tasting; do not touch parts of dishes or utensils which touch food or mouth; bandage cuts and sores. Explain the reason why each practice should be observed.

TS5:18 Have students work in cooperative learning groups to develop a checklist of hygienic practices a food handler should follow. Students should utilize the checklist for self-evaluation in class and on the job.

PROCEDURES FOR HAND DISHWASHING

TS5:19 Demonstrate correct prewash procedures of scraping, disposing of garbage, presoaking, and sorting. KEY QUESTIONS: What equipment is used? How is paper trash disposed of? How is garbage disposed of when a garbage disposer is not available? What is the correct temperature of water used for prerinsing?

Prewash

TS5:20 Develop a bulletin board illustrating the sequence of steps to follow for prewashing of pots, pans, and other utensils. Have students place pictures or word descriptions in the correct places. An example is included in Teaching Aid 19, Precleaning Dishes. KEY QUESTIONS: Should you use a tool or your hand to scrape a plate? Why are dishes prerinsed? Does prerinsing clean the same way as scraping?

TS5:21 Explain the importance of presoaking certain items and the types of items to presoak. Demonstrate the difference by washing one plate that has been presoaked and one which has not. KEY QUESTIONS: What types of items need presoaking? What happens if you do not presoak?

TS5:22 Use Teaching Aid 20, Dishes That Are Sanitary Are Free From:, and discuss with the students how to tell if dishes are sanitary. KEY QUESTIONS: What are some signs of dirty dishes? What should you do with a cracked dish? Why is it unsanitary to drink from a chipped glass or cup? How should you treat a customer who asks for a new dish or utensil due to chips, cracks, or lack of cleanliness?

Washing

TS5:23 Have students watch a cafeteria worker, restaurant employee, or other resource person demonstrate manual dishwashing. KEY QUESTIONS: What items are usually washed manually? What supplies are needed? What equipment is used? What sequence of steps are used in manual dishwashing? How is water temperature checked? What type of detergent is used? How is the detergent measured? How is sanitation insured?

TS5:24 Have students depict on a separate poster each of the six steps used in manual dishwashing. The six steps are included in the reading assignment for this chapter (p. 37). View and discuss the posters and have students arrange them in the correct sequence. KEY QUESTIONS: What water temperature is necessary to wash the dishes? To rinse the dishes? To sanitize the dishes? How is water supplied at these temperatures? How long should items be immersed in the third sink? Display the posters near the sink where dishwashing is done.

TS5:25 Use Teaching Aid 21, Sinks and Temperatures for Hand Dishwashing. Lead a class discussion on the use of two and three compartment sinks. KEY QUESTIONS: How hot does water need to be to sanitize? Why are three sinks better than two? What does the chlorine solution do? Why is the time factor important?

TS5:26 Use Teaching Aid 22, Sanitary Methods to Clean Pots and Pans, and lead a class discussion on the correct method to clean pots and pans. KEY QUESTIONS: What should be done with large pans when cleaning? What temperature water should be used to sanitize pots? Why should pots be stored upside down on shelves?

PROCEDURES FOR MACHINE DISHWASHING

TS5:27 Invite a commercial food service equipment salesperson or a commercial dish machine operator to explain and demonstrate the dish machine for the class. KEY QUESTIONS: What cycles do dishes go through in a commercial dish machine? How are dishes racked for washing? What kind of detergent is used? How much detergent is required? How is it measured? What sanitizing agents are used? How are they measured? What is the most important concern for sanitary machine dishwashing?

TS5:28 Lead a class discussion on the differences between the two methods of washing dishes. Compare the water temperatures, the number of people involved, the time required, etc.

TS5:29 Have students take turns trying to operate the dish machine checking each step in the procedure against those observed in the demonstration. Inspect the dishes for cleanliness when they are removed from the dish machine.

TS5:30 Ask students to discuss and compare the procedure used for dishwashing at their training stations or places of employment with those used by other students. KEY QUESTIONS: Is the sequence of steps the same? Is the equipment the same or different? Are the differences in procedures a result of differences in equipment?

PROCEDURES FOR STORING CLEAN TABLEWARE AND UTENSILS

TS5:31 Demonstrate and explain the correct procedure for storing clean dishes. KEY QUESTIONS: Why does it help to store utensils in an orderly fashion? Are they easier to find? Is it easier to put dishes and utensils away when each item has a special place? What could happen if dishes, glassware, flatware, pots and pans, and utensils are not properly stored?

TS5:32 Have students view and discuss Teaching Aid 23, Handling Clean Dishes. KEY QUESTIONS: Why should dishes, flatware, glasses, and utensils be handled correctly? Whose safety is involved? Could your own safety be involved? How?

TS5:33 Assemble trays containing a cup, saucer, plate, glass, fork, knife, and spoon. Divide the class into pairs of students. Have the pairs of students alternately demonstrate and observe the handling of each item on the tray. The observer may point out to the demonstrator any incorrect procedures that are used.

TS5:34 Lead a class discussion on ways of transporting clean items to the storage area while maintaining the sanitation level. KEY QUESTIONS: What kind of cart should be used? How should the cart be maintained? How should equipment be handled? Why is this important?

SANITATION REQUIREMENTS

Stationary Equipment

TS5:35 Have students outline the basic procedures for cleaning and sanitizing stationary equipment at their work station (in the school laboratory or in their training station). Have students compare the outline they have prepared to the guidelines included in Chapter 5 of the Reference Book (pages 38-39).

TS5:36 Take students on a tour of a food service establishment restaurant, cafeteria, fast-food facility, hospital or nursing home cafeteria, school cafeteria, or caterer. Instruct students to observe procedures for cleaning and sanitizing stationary equipment. Ask the manager or supervisor to explain the system and rules for cleaning equipment.

TS5:37 Have students compare the procedures for cleaning and sanitizing equipment at different types of food service establishments. Lead a class discussion on the difference between cleaning and sanitizing. KEY QUESTIONS: How do the procedures differ for cleaning and sanitizing? Are the procedures similar or different at different types of establishments?

Facility Sanitation

TS5:38 Ask students to role play skits depicting customers entering clean and dirty food service establishments. KEY QUESTIONS: What can happen if the furnishings are not clean? Does this make customers want to return? Why is it important to have clean facilities in a food service establishment? How do you feel if you enter a dirty restaurant? a clean one?

TS5:39 Have students work in cooperative learning groups to determine the purpose of cleaning and to identify standards for cleaning the laboratory. Share with the class.

TS5:40 Have the class develop a list of things that make a food service facility sanitary. Write the list on the board, overhead projector, or a poster to be displayed. Have students make a second list of surfaces to be cleaned and sanitized. Include floors, walls, windows, furniture, light fixtures, plants, counters, etc. Lead a class discussion on how often each surface should be cleaned. KEY QUESTIONS: What surfaces may have to be cleaned several times a day? Which surfaces should be cleaned daily? Which surfaces may only need cleaning weekly or monthly? Why?

TS5:41 Have students explain the need for sanitary practices by participating in a circular response (class members sit in a circle and take turns responding) to complete statements concerning sanitary practices in food preparation and service. Examples:

"Restaurants should be careful to..."
"I dislike a waitress or waiter who..."
"It is important to prepare food in a clean place because..."
"Food served in a dirty dish causes me to..."
"Greasy smudges on a drinking glass make me feel..."

Cleaning Tabletops, Counters, and Other Surfaces

TS5:42 Demonstrate the correct procedure for cleaning tabletops, counters, and other surfaces (including windows, shelves, glass centers, pie cases, service equipment, and beverage containers). KEY QUESTIONS: What methods of cleaning are used for each? Why is sanitizing of tabletops and counters necessary? How are tabletops and counters sanitized? What type of cleaning is required before new customers are served?

TS5:43 Have students practice cleaning and sanitizing the surfaces in the food service laboratory or facility where they are employed. There should be a rotation of student cleaning responsibilities so that each student can learn to clean and sanitize all types of surfaces. Include ledges, light fixtures, pictures, door and window glass and sills, and artificial and live plants among surfaces to be cleaned regularly.

TS5:44 Set up a display of different types of cleaning equipment and supplies. Have students identify the correct equipment and supplies for specific cleaning jobs; examples include a vinyl chair, a wooden table, and a formica serving counter. Have students describe correct cleaning procedures.

TS5:45 Duplicate Teaching Aid 24, Cleaning Procedures, and give it to students. Divide the class into small groups, and ask each group to select a type of surface to clean. Have them study information on correct procedures and then demonstrate them for the class.

Cleaning Floors

TS5:46 Demonstrate, or invite a representative to demonstrate, procedures for sweeping, dust mopping, wet mopping, vacuuming, and polishing floors. Have students list the steps involved in each method. KEY QUESTIONS: How often is each procedure done in a food service establishment? What motion is used for each procedure? What equipment and supplies are used for each procedure?

TS5:47 Obtain samples of different types of floor finishes from a store. Have students conduct experiments by dropping various foods on the samples and testing different cleaning products and methods to determine which product and method gives the best results in each situation. Examples of foods which might be used for dropping on the floor are milk, oil or grease, ketchup or barbeque sauce, cola, mustard, and jelly.

TS5:48 Have students view Teaching Aid 25, Efficiently Cleaning the Floor, and lead a class discussion on the most efficient way to clean the floor by mopping. KEY QUESTIONS: Why is it important to use two buckets? Why should you wring the mop? Why do you use a figure eight motion? How do you remove stubborn spots? How big an area do you clean before rinsing and drying? What size area should you mop, rinse, and dry before moving to adjacent areas?

TS5:49 Have students work in pairs to practice the correct cleaning procedures for floors (including sweeping, dust mopping, wet mopping, vacuuming, and polishing), walls, windows, and light fixtures. Observe the methods used and point out any incorrect procedures or products being used.

TS5:50 Give students a list of different types of floor surfaces or finishes (included in Chapter 5, pages 39-40 of the Reference Book). Have students indicate the care required for each type of floor and explain the correct procedure for caring for the floor. NOTE: This may be used as a learning activity or an evaluation device. If used for evaluation, it could be a paper and pencil test or a skill test.

Pest Control

TS5:51 Invite a resource person from a local pest service to speak to the class about pest control. KEY QUESTIONS: What pesticides are acceptable according to the State Board of Health? Why are some pesticides banned? How can food service employees help with pest control?

TS5:52 Set up a mock pest inspection of the school laboratory. Assign pairs of students to inspect for pests. Before class, leave clue cards describing a situation in places where the students might ordinarily find pests. Example: Students open a drawer and find a card which reads "as you opened this drawer, you noticed a cockroach run towards the dark, back corner." Each team will identify the possible pest problem and suggest a solution. A prize could be given to the team that finds the most problems and identifies the correct solutions.

TS5:53 Have the class inspect the laboratory for pests or signs of pests. If any are found, have students determine the best control measures to take. Lead a class discussion on what may have caused the pest problem or how it could have occurred. Also discuss what students can do to control pest problems in the future.

TS5:54 Use Teaching Aid 26, Destroying and Repelling Pests, and lead a class discussion on the causes of rodents and insects in food service facilities and methods of control. KEY QUESTIONS: What diseases may be transmitted by insects, rodents, or birds? What signs do these pests leave? What steps can be taken to control pests? What is the best insurance against disease-carrying pests?

6 Food Sanitation

COMPETENCIES TO DEVELOP

- Use sanitary food handling, preparation, and storage techniques.

OBJECTIVES TO ACHIEVE

- Explain biological, chemical, and physical hazards to food.
- Describe food-borne illnesses, their causes, and means of transmission.
- Summarize sanitary procedures for food handling and storage.
- Explain the time-and-temperature principle.
- Describe correct procedure for handling leftover foods.

ASSIGNMENT

- Read Chapter 6 in the *Food Production, Management, and Services Reference Book.*

FOOD-BORNE ILLNESSES

TS6:1* Lead a class discussion on the causes of food-borne illnesses. Help students classify these causes on the board in three columns headed: Biological Hazards, Chemical Hazards, and Physical Hazards. As an alternate activity, divide the class into three groups, and assign each group to report on one type of hazard. Students may refer to Teaching Aid 27, Food Contamination, for additional information.

TS6:2 Assign one or two students to interview a food service supervisor, manager, or a health department official to learn what types of problems are faced by food service facilities in maintaining sanitary conditions and preventing food-borne illnesses. Ask students to report their findings to the class.

TS6:3 Show an audiovisual on safe food handling. Have students watch for and list the causes of food-borne illnesses, the kinds of bacteria that cause them, and the conditions needed for bacterial growth. Discuss the lists made by the students during the film viewing. Supplement or reinforce any concepts that are confusing to students.

TS6:4 Ask students to collect newspaper articles about food-borne illnesses and their causes. Display the articles and lead a class discussion on information provided.

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* TS 6:1 indicates teaching strategy, chapter 6, number 1.

KEY QUESTIONS: How could sanitation be a factor in each case? Who is responsible for sanitation in food service establishments?

TS6:5 Divide the class into four groups, and assign each group a type of illness with bacterial origin. Have the group spend a few minutes reviewing the chart of information in Chapter 6, page 48 of the Reference Book. Have each group develop a quiz game for their assigned illness. Ask the students to include questions on the type of disease caused by each specific bacteria, the incubation period of each illness, the symptoms, sources, implicated foods, and prevention. Allow each group five minutes to explain their game and five blocks of ten minutes for the class to play each game.

SANITATION FOOD PREPARATION AND SERVICE

TS6:6 Lead a class discussion on Teaching Aid 28, Temperatures for Keeping Food Safe. KEY QUESTIONS: What is the danger zone for food? At what temperature does the most rapid bacterial growth occur? What is the safest method for defrosting frozen food?

TS6:7 Have students develop charts illustrating the time-and-temperature principles. Ask them to include information answering the following questions: What temperatures are crucial in food display and service? Which foods are most frequently associated with food-borne illnesses? How long can foods be safely kept at serving temperatures? How should leftovers be handled?

TS6:8 Demonstrate the use of a meat thermometer to check the degree to which meat products are cooked. KEY QUESTIONS: To what temperatures should poultry, pork, and beef be cooked? Which meat products should be cooked to the highest temperature? Which meat is usually cooked to the customer's specification?

TS6:9 Have students work in groups to develop a chart to summarize the correct cooking temperatures for roasting poultry, stuffed meats, pork, and rare, medium, and well-done roast beef. Put the chart on display for future reference.

TS6:10 Demonstrate the four acceptable ways of thawing frozen food. Lead a class discussion on the suitability of each method for different types of food. KEY QUESTIONS: What other factor often determines how food will be defrosted? Why should food not be defrosted at room temperature?

TS6:11 Prepare agar plates (culture medium) to show the growth of bacteria resulting from lack of personal cleanliness. Have students cough or sneeze on different agar plates. Touch one agar plate with dirty hands and another with clean hands. Place a hair on an agar plate. Place a cockroach or fly on an agar plate. Label each plate as it is prepared for future identification. Incubate the plates by keeping them in a warm place so the bacteria will reproduce rapidly. Borrow a microscope from the science department to view the bacteria. Have students view the plates the day they are prepared, again in 24 hours, and several days later. Lead students to discuss the results after each viewing.

TS6:12 Show an audiovisual on good and poor sanitation practices related to food service. Discuss the examples of good sanitation practices following the audiovisual. Ask students to cite examples of good or poor sanitation practices they have observed in food service establishments. Explain why sanitation is a major concern in the food-service industry.

7

Nutrition

COMPETENCIES TO DEVELOP

- Use nutritional information in meeting dietary needs of persons of various ages.
- Use food preparation techniques which conserve nutrients.
- Display awareness of various factors which affect eating habits.

OBJECTIVES TO ACHIEVE

- Describe the functions of food.
- Identify the sources and functions of specific nutrients.
- Describe food preparation techniques which conserve nutrients.
- Outline the Daily Food Guide.
- Summarize the Dietary Guidelines for Americans.
- Determine factors which influence eating habits.
- Identify the nutritional needs of persons of various ages.
- Outline meal patterns common in the United States.

ASSIGNMENT

- Read Chapter 7 in the *Food Production, Management, and Services Reference Book.*

FUNCTIONS OF FOOD

TS7:1* Have students develop a bulletin board comparing the body to an engine. Ask the students to depict the following facts: an engine cannot run without fuel, and a body cannot function without food. Point out that food provides energy needed to make the body move and produces heat to keep it warm. Food also builds, repairs, and maintains the body.

TS7:2 Discuss and define nutrition. Have students start a list of "Nutrition Terms" where they can record definitions related to food and nutrition.

TS7:3 Lead a class discussion on the function of food in meeting emotional needs. KEY QUESTIONS: Why do some people eat even though their body may not need fuel? How can emotional needs affect the way we eat? Why should a food service worker understand the effects of emotions on eating habits?

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* TS 7:1 indicates teaching strategy, chapter 7, number 1.

TS7:4 Duplicate and distribute Teaching Aid 29, What's in a cheeseburger? Have each student complete the Teaching Aid according to the stated directions. Refer students to Chapter 7 of the Reference Book under the headings "Sources and Functions of Nutrients." Make a transparency of Teaching Aid 31, Food Guide Pyramid and display to the class on the overhead projector while students complete the assignment. Lead a class discussion on student's choices to make the cheeseburger healthier. KEY QUESTIONS: What part of the cheeseburger adds the most calories from fat? Is one kind of lettuce more nutritious than the other? Why? In what ways could pizza be modified to lower the fat and increase the nutrient value?

SOURCES AND FUNCTIONS OF SPECIFIC NUTRIENTS

TS7:5 Have students play "Nutrition Relay." Place a small bell on the teacher's desk. Divide the class into two teams, and have the teams line up across the front of the classroom. The teacher calls out questions about nutrients. The team who rings the bell first and gives the correct answer scores a point. The first person in line must ring the bell and give the team's answer. (Example: The teacher says, "What does Vitamin K do?" Students may confer with team members before ringing the bell, but they must answer immediately after ringing.) Students go to the end of the line after attempting a question. The team with the greatest number of correct answers wins the relay.

TS7:6 Have students determine which foods are good sources of each of the following nutrient groups: proteins, carbohydrates, fats, vitamins, and minerals. Clip magazine pictures of all kinds of foods. Work in small groups to sort the pictures collected by the class into grocery bags labeled Proteins, Carbohydrates, Fats, Vitamins, and Minerals. Were some pictures difficult to classify? Why?

TS7:7 Lead a class discussion on Teaching Aid 30, Functions of Nutrients. KEY QUESTIONS: What can happen if you are deficient in a nutrient? What might be the results of an excess amount of different nutrients? Why can a nutrient not function independently? Why is water important? What are calories?

TS7:8 Show an audiovisual on nutrients, their functions, sources, and the effects of proper and improper cooking techniques. Discuss diseases and health problems caused by nutrient deficiencies or megadoses.

TS7:9 Develop a set of nutrient flash cards. On one side write the name of the nutrient and, on the other side, list three or four functions and sources. Have students take turns quizzing each other, using alternate sides so they can learn the nutrients by name and by function, and know the sources of nutrients.

Protein

TS7:10 Ask students to identify the components of protein. Explain the differences between complete and incomplete proteins. KEY QUESTIONS: What food sources provide complete protein? incomplete protein? What is coagulation? Where is protein found in the body?

TS7:11 Have students study references to learn how foods containing incomplete proteins may be accompanied by other foods to form complete proteins. Find as many examples as possible and construct a bulletin board or poster which depicts food combinations that build complete protein. (Examples: red beans with corn tortillas or corn bread; macaroni and cheese; cereal and milk.)

Carbohydrate and Fat

TS7:12 Conduct an experiment by having students hold a soda cracker in their mouths until they notice the change in flavor as the starch changes to a sugar. Toast a slice of bread and ask students to describe the change in appearance and flavor that occurred in the carbohydrate.

TS7:13 Have students develop a chart of the six sugars and their sources as discussed on page 58 of the Reference Book. KEY QUESTIONS: Which sugars are monosaccharides? disaccharides? What is the effect on sugar during cooking?

TS7:14 Write the word fat on the board or the overhead projector. Ask students to define its nutritional functions. Lead a class discussion on fat as a source of energy. KEY QUESTIONS: What is adipose tissue and what does it do? What are the three types of fat and where do they come from? Where is cholesterol found? What happens to fat cooked at high temperatures?

TS7:15 Have students role play a situation between two teenage friends. One is going on a diet and will not eat anything that contains fat or is high in carbohydrates. The other explains the functions of carbohydrates and fat in the body and the importance of including some of each in the diet.

Vitamins

TS7:16 Divide the class into cooperative learning groups. Have each group choose a vitamin and write a day's menu for a person who has been instructed to eat an abundance of foods rich in that vitamin. Ask each group to report their food selections. Have the other groups agree or disagree and give reasons.

TS7:17 Lead a class discussion on the differences between fat-soluble and water-soluble vitamins. KEY QUESTIONS: Which vitamins are fat-soluble? water-soluble? What sources provide vitamins to the diet? What deficiencies can occur? How can you minimize vitamin loss during cooking?

Minerals

TS7:18 Divide the class into cooperative learning groups. Have each group take a mineral or group of minerals and develop a chart listing the function, source, and what might happen if a deficiency were to occur. Display the charts and give a small prize or privilege to the group that produces the best chart.

TS7:19 Demonstrate for students cooking techniques and methods that preserve nutrients. Ask students to determine which of the following is most appropriate for preserving nutrients:

- Cooking at high or low temperature
- Cooking in very little or a lot of water
- Using a lid or not using a lid

DAILY FOOD GUIDE

TS7:20 Have students view Teaching Aid 31, Food Guide Pyramid*. Then divide the class into five groups, assigning each group one of the five basic food groups (fats, oils, and sweets are not considered a basic food group). Ask them to find information on their assigned food group and make a list of the foods included in that group, and the number of servings recommended each day. Report to the class and discuss.

TS7:21 Have students record everything they eat for two days, including snack foods. Have them analyze what they ate and compare the number of servings from each food group to the recommended number of servings for each group. NOTE: A computer dietary analysis may be used, if available. Have students make a plan for improving their nutrition and see if they can follow it for one week. Have them report results.

**The Food Guide Pyramid, approved by the Department of Health and Human Services and the Department of Agriculture, went through final revisions in 1990 and is the most up-to-date daily food guide available. The pyramid is meant to replace daily food guides previously used as it provides at-a-glance understanding about foods needed daily, from what groups and in appropriate amounts.*

DIETARY GUIDELINES

TS7:22 Use Teaching Aid 32, Dietary Guidelines For Americans, and lead a class discussion on the seven dietary guidelines developed by the U.S. Department of Health and Human Services and the U.S. Department of Agriculture. KEY QUESTIONS: For whom are these dietary guidelines intended? Will following these guidelines make you healthy? Why?

FACTORS AFFECTING EATING HABITS

TS7:23 Lead students to brainstorm factors that affect what we eat. Include cultural patterns, personal preferences, seasonal preferences, age, and health.

TS7:24 Lead a class discussion on factors that affect the food choices of each student. KEY QUESTIONS: What cultural foods do you eat? Does your family have any cultural or seasonal eating customs? What changes have occurred in your food preferences in the last few years? How do your choices differ from young children in your family? your parents? older adults?

NUTRITIONAL NEEDS

TS7:25 Have students develop a chart on the different dietary needs for people of various age groups. Have students add suggestions for appropriate diets for each age group. Use Chapter 7 of the Reference Book as a reference.

TS7:26 Lead a class discussion on the nutritional needs of each age group. KEY QUESTIONS: How do nutritional needs differ from one age group to another? Why do eating patterns change? What foods might an elderly person or adult eat that a young child might not? Why?

MEAL PATTERNS

TS7:27 Take an informal "raise your hands" survey of students to find out how many eat breakfast. Of those who do, compare what they eat and determine if it is a heavy, light, or very light meal. Why do these students eat breakfast? Of those who do not eat breakfast, list the reasons why on the board. Compare the reasons to those given in the reading assignment.

TS7:28 Write on the chalkboard the words Breakfast, Lunch, and Dinner to head three columns. Have students suggest what kinds of food should be included in each meal and record them in the proper column. KEY QUESTIONS: Why do we associate certain foods with certain meals? Do all cultures have similar meal patterns? Would it be easy or difficult to adjust to unfamiliar meal patterns?

8

Special Diets

COMPETENCIES TO DEVELOP

- Define and use correct diet terminology.
- Identify menus for general and modified diets.
- Adapt menus for modified diets.
- Follow diet instructions in preparing general and modified diets and diet supplements, and in assembling trays.
- Report patient food response to supervisor.

OBJECTIVES TO ACHIEVE

- Demonstrate the use of cycle menus.
- Summarize special dietary considerations in planning meals for young children.
- Describe requirements for school cafeteria menus.
- Summarize dietary requirements of the sick and aging.
- Define dietary terminology.
- Describe the most commonly used therapeutic diets.

ASSIGNMENT

- Read Chapter 8 in the *Food Production, Management, and Services Reference Book.*

CYCLE MENUS

TS8:1* Obtain copies of cycle menus from health care facilities and share with students. KEY QUESTIONS: How are these menus planned? How will these menus be used? What are the advantages and disadvantages in using cycle menus? How long a period of time do the menus cover?

PLANNING MEALS FOR YOUNG CHILDREN

TS8:2 Have students tour a child care facility in the area to find out how meals are planned for the children. If a learning tour is not possible, invite a representative from a child care center to discuss menu planning for children. KEY QUESTIONS: What guidelines or regulations must be followed pertaining to food service? What foods are normally served? What types of food will children not eat? How do you decide which foods to include in the menu? Are cycle menus used?

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* TS 8:1 indicates teaching strategy, chapter 8, number 1.

TS8:3 Have students develop menus for a child care center. Students must be able to explain why each food was included. Keep in mind nutrition, color, temperature, arrangement of food, and children's likes and dislikes.

REQUIREMENTS FOR SCHOOL CAFETERIA MENUS

TS8:4 Lead students to brainstorm the types of foods they would like to have included in the school cafeteria menu. Have them compare these choices to a menu provided by the cafeteria. How many items are the same? How many are different?

TS8:5 Have students evaluate the school cafeteria's menu in relation to the federal government's school breakfast and lunch pattern (formerly Type A) requirements. Refer to Teaching Aid 33, School Lunch Patterns for Various Age/Grade Groups, or the chart on page 77 of the Reference Book. KEY QUESTIONS: How are the menus similar? What foods are added or deleted? What percentage of the student's daily dietary needs should be met by the school lunch menu?

TS8:6 Ask students to prepare a week's menu plan for the school cafeteria, using the breakfast and lunch patterns. Evaluate the menus and discuss them in class.

DIETARY REQUIREMENTS OF THE SICK AND AGING

TS8:7 Invite a dietitian or food service employee to discuss the various prescribed diets that are prepared in most hospitals and nursing homes. KEY QUESTIONS: Why is it important for the dietary aide or food service employee to be aware of the importance of strictly following the prescribed diets? What are the advantages of providing dining room service for ambulatory residents? What attitudes affect the eating habits of patients or residents in health care institutions?

TS8:8 Ask students to visit a patient or resident in a health care institution. Have students interview the patient or resident to determine that person's attitudes about the foods served. Have students report findings in class and discuss. KEY QUESTION: Are patients' attitudes about food determined by their special food likes and dislikes? NOTE: This activity may be combined with FHA/HERO activities, if desired.

DIETARY TERMINOLOGY

TS8:9 Develop flash cards for class use. Using definitions in Chapter 8 of the Reference Book, write the word on one side of the card and the definition on the other side. Cards can be used with the entire class or by individual students to reinforce dietary terminology.

TS8:10 Conduct a terminology question and answer game by dividing the class into two teams. Have the teams stand on opposite sides of the room and alternate giving definition answers to your terminology questions. If a student on either team cannot answer or gives an incorrect answer, that student is eliminated and must sit down. The team with the most members still standing at the end of the game is the winner.

THERAPEUTIC DIETS

TS8:11 Duplicate and distribute Teaching Aid 34, Therapeutic Diets. Ask each student to complete the multiple choice activity. Have a student volunteer write the answers on the chalkboard or overhead projector and discuss the answers with the class. KEY QUESTIONS: Why are these diets called therapeutic diets? Which of the therapeutic diets tend to be for short-term use? Why? Which of the therapeutic diets are most likely long-term diets? Why?

TS8:12 Ask students to explain the difference between general and therapeutic diets. KEY QUESTIONS: Who orders a therapeutic diet? What foods does a general or regular diet include? What are the advantages of a selective menu? Does going on a therapeutic diet necessarily mean withholding certain foods?

TS8:13 Have students compare different diets. Instruct them to use Teaching Aid 35, Menu Form for Modified Diets, to evaluate the diets.

TS8:14 Lead a class discussion on nourishments and supplemental feedings. Exhibit a can of supplement and have students examine the label for nutrition information. KEY QUESTIONS: What foods may be ordered as nourishments? Why might supplementary feedings be prescribed?

TS8:15 Divide the class into cooperative learning groups. Give each group a situation and have them prepare a diet for one day for the person in the assigned situation. Examples:

- person with a weight problem (high or low)
- person with new dentures
- person with a heart problem who needs a low fat diet
- a diabetic who is hospitalized for minor surgery

TS8:16 Obtain an exchange list from a hospital or other source and guide students to interpret the list. Have them use the exchange list to write menus for one week for someone on a modified diet. Lead students to evaluate and discuss the menus in class.

TS8:17 Tour a hospital, if possible, and have students observe the preparation and service of routine and modified diets. If a learning tour is not allowed, perhaps the hospital dietitian can visit the class and describe the preparation of various diets. KEY QUESTIONS: How are menus planned? How do patients make food choices? What is the role of the dietitian? How are diets modified for certain diseases or health conditions?

TS8:18 Write a description of the system used at your training station to identify trays of food for different therapeutic diets. Exchange descriptions with other dietary students to compare the systems used in various institutions. NOTE: The replacement for Activity 8-5, page 51 of the Student Activity Book (1986 edition), is on the following page. The answers for both the original activity 8-5 and the replacement are in the Activity Book Answer Keys section.

FOOD PRODUCTION, MANAGEMENT, AND SERVICES STUDENT ACTIVITY BOOK

Replacement Page 51

ACTIVITY 8-5 DIRECTIONS: Place the letter of the therapeutic diet in the blank to the left of its description. Each letter will be used once.

DIET DESCRIPTION

_____ 1. A diet for patients who have difficulty chewing or swallowing.

_____ 2. Supplies few nutrients but does give necessary fluids for one or two days.

_____ 3. Liquid diet that supplies all nutritional needs and can be used for a longer period of time.

_____ 4. Restricts certain types of foods and specifies exact amounts of protein, fat, and carbohydrate.

_____ 5. Nutritionally adequate, but low in calories. Sometimes used in diets for cardiovascular patients.

_____ 6. May be used for patients with disorders of the digestive system or persons too weak to chew.

_____ 7. Diet of mild-flavored foods often used for ulcer patients.

_____ 8. Used for edema related to heart conditions and toxemia of pregnancy.

_____ 9. Nutritionally adequate weight reduction diet.

_____ 10. Used to maintain weight without gaining or losing.

THERAPEUTIC DIET

A. Bland
B. Calorie-controlled
C. Calorie-restricted
D. Clear liquid
E. Diabetic
F. Fat-restricted
G. Full-liquid
H. Liquid
I. Soft
J. Sodium-restricted

9

Tools and Utensils

COMPETENCIES TO DEVELOP

- Identify, select, and use large and small food service equipment.
- Clean, maintain, and store food service equipment and tools.
- Report equipment needing repairs to supervisor.

OBJECTIVES TO ACHIEVE

- Differentiate between tools and utensils.
- Describe procedures for using cutting devices safely.
- Select appropriate tools for food preparation and service tasks.
- Select appropriate utensils for food preparation and service tasks.
- Select appropriate equipment for transporting food and supplies.

ASSIGNMENT

- Read Chapter 9 in the *Food Production, Management, and Services Reference Book.*

TOOLS AND UTENSILS

TS9:1* Lead a class discussion on the difference between tools and utensils. Show examples by holding up hand-held equipment and identifying them as tools. Then show containers for holding food and identify them as utensils. KEY QUESTIONS: How do tools and utensils in food service differ from those in the home? What are some examples of tools? of utensils?

TS9:2 Define tools and utensils for the class. Using your definition as a basis, play a game of identification. Put ten assorted tools and utensils on a tray. Hold up one item at a time and have the students write down whether it is a tool or utensil. Go over their answers for reinforcement.

SELECT CORRECT TOOLS

TS9:3 Using Teaching Aid 36, Measuring Equipment, discuss types of measuring equipment. Include liquid and dry measuring cups and measuring spoons. KEY QUESTIONS: What intervals should be marked on liquid measuring cups? Why is metal preferred over plastic for dry measures? How is a measuring cup for either liquid or dry ingredients limited? How should you care for measuring equipment? Why are both glass and metal measuring cups used in food preparation? Which cups are used to measure liquids? Which cups are used to measure dry ingredients? What is the purpose of measuring spoons? What happens to plastic measures that are not cared for properly? Why is it important to store measuring equipment carefully?

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* TS 9:1 indicates teaching strategy, chapter 9, number 1.

TS9:4 Demonstrate the correct method for measuring flour, sugar (confectioner's, granulated, and brown), solid fats, and liquids. KEY QUESTIONS: How do you measure fractions of a teaspoon or tablespoon? How do you measure a few grains, a speck, or a pinch?

TS9:5 Prepare a set of cards before class by listing one piece of measuring equipment on each card. Ask students to draw a card. The student should then locate the piece of equipment named on the card, show it to the class, tell them what it is, and how it is used. The equipment to be identified may be all placed on a tray or left in its usual storage place.

TS9:6 Demonstrate how to use the liquid measuring equipment correctly. KEY QUESTIONS: Why is it important to not shake the measuring cup containing the dry ingredient? Why do you first heap the cup with the dry ingredient, then level it off? What tool do you use to level the cup off?

TS9:7 Demonstrate how to use the liquid measuring equipment correctly. KEY QUESTIONS: Why is liquid measuring equipment used differently than dry measuring equipment? Why is it important to have the liquid measuring equipment on a flat, even surface before reading it?

TS9:8 Have students practice the correct procedures for measuring both dry and liquid ingredients. Provide each student the opportunity to measure several different types of ingredients.

TS9:9 Use Teaching Aid 37, Fun With Measurements, and have students play *Fun With Measurements* to reinforce their knowledge of what measuring equipment to use with specific ingredients. Or you may call out ingredients by name and have students answer with the type of measuring equipment that would be used to measure that ingredient.

TS9:10 Divide the class into groups of four. Have students prepare a brownie mix and an instant soft drink mix. Observe each group's use of measuring equipment, and evaluate the techniques used.

Thermometers

TS9:11 Have students view Teaching Aid 38, Types of Thermometers (or look at the actual thermometers). Lead a class discussion on the uses of each type. KEY QUESTION: What is the difference between a thermostat and a thermometer?

TS9:12 Demonstrate the use of different types of thermometers. Include confectionery, dial type, and fat thermometers.

Cutting Tools

TS9:13 Have students view Teaching Aid 39, Cutting Devices, to identify various cutting tools. On a desk or table, set up an exhibit of the same cutting tools for students to identify and examine.

TS9:14 Show an audiovisual that describes the cutting tools used in food service. Lead a class discussion on the kinds of knife blades and the kinds of knife handles found on the cutting tools. KEY QUESTIONS: What is meant by point, edge, back, and handle of a knife? What are the names of some of the most common knives used in food preparation?

TS9:15 Have students remove cutting tools from a display of various hand utensils used in food service and identify them by name. Evaluate the accuracy of each student's identification of the tools.

Knives

TS9:16 Demonstrate how to hold a knife and how to pass a knife to another person. KEY QUESTIONS: Is there a sharp edge and a dull edge on the knife? Which is the cutting edge? Why is it important to hold the knife by the handle? Why should the point be kept downward when carrying a knife? What part of the knife should you hand to another person first?

TS9:17 For review, have students list safety tips (on the board) for handling knives. As the safety tips are discussed, be certain students include the following:

- Never hold a knife by the blade.
- Hold the point downward, when carrying.
- Never slide your finger over the blade's edge.
- Store knives in a rack, not loose in a drawer.
- Keep knives separate from other kitchen tools.
- Do not drop knives into the dishwater or into the sink.

Use Teaching Aid 40, Safety Practices in Using Cutlery, to further review safe and unsafe use of knives. Discuss.

TS9:18 Use Teaching Aid 41, Most Common Knives and Their Uses. Following the presentation of the visual, give a pop quiz by having students list four knives commonly used in food preparation and name the uses of each knife they listed.

TS9:19 Play the game of Knife-O (Played the same as Bingo) to learn the correct use for a specific knife in food preparation. Provide students with markers (buttons, beans, or circles cut from construction paper) and Knife-O cards. Cards should have five squares across and five squares down for a total of 25 squares. The center square is free and other squares should have the names of different types of knives printed in them. The names of the knives may be used more than once if necessary. As a description of the knife or its use is read, students place a marker on the corresponding name of the Knife-O card. When markers cover five squares in a straight line, either vertical, horizontal, or diagonal, the student can win by calling out "Knife-O."

TS9:20 On the chalkboard, list different cutting tasks. (Examples include slicing vegetables, cutting fruits, cutting sandwiches, slicing cakes, coring lettuce, paring and sectioning fruits, and removing eyes from potatoes.) Have each student write his or her name beside one of the tasks listed on the board and then locate in the laboratory the appropriate knife for the selected task. When the teacher calls out the task, the student will identify the knife chosen and demonstrate how to safely perform the task.

TS9:21 Instruct students to work in small groups to prepare a salad luncheon and practice the safe use of appropriate knives. Each group should prepare a different salad that requires several types of cutting tools.

TS9:22 Demonstrate the correct use of a sharpening steel. Have students practice sharpening knives using the sharpening steel under your supervision. Lead students to discuss safety practices to follow when working with knives. KEY QUESTIONS: What shape is a sharpening steel? When should knives be sharpened?

TS9:23 Provide a display of different types of cutting surfaces made of various materials. Be certain to include the plastic or hard rubber type used in most food service facilities. Discuss the advantages and disadvantages of each type. KEY QUESTION: Why are wooden cutting boards not preferred in food service use?

Other Cutting Tools

TS9:24 Demonstrate and explain the use of other cutting tools. Include a peeler, grater, and utility scissors. Use Teaching Aid 42, Other Cutting Tools, and ask students to list uses for each type. Have students practice using each type of cutting tool.

Food Handling Tools

TS9:25 Use Teaching Aid 43, Food Handling Tools, to identify and explain tools used for food handling. Show and demonstrate the use of each type of food handling tool.

TS9:26 Assemble a tray of tools used for handling food. Have students identify each piece of equipment, as it is held up, and describe its use. The class can be divided into teams and a game conducted to see which team can correctly identify the most items, or the activity could be used for evaluation.

TS9:27 Divide the class into pairs to practice using the food handling tools correctly. Observe and give students suggestions for improvement. Provide inexpensive food items for the practice session such as water, salt, flour, cornmeal, beans, and potatoes.

TS9:28 Lead a class discussion on the sizes of dippers which are most often used in food service. KEY QUESTIONS: For what food items are the dippers used? Do larger size numbers indicate large or small dippers? Why is it important to use the specified size dipper or scoop when portioning food?

TS9:29 Use Teaching Aid 44, Types of Brushes. Pass brushes around the classroom so that students can examine and compare the sizes and shapes. KEY QUESTIONS: What kinds of jobs can be accomplished by using brushes in food preparation? Why would brushes be important in food service operations?

UTENSIL SELECTION

TS9:30 Lead a class discussion on the proper storage methods for staple foods in food service operations. KEY QUESTIONS: What type of containers are used? Why are covers used? How are large quantities usually moved about? What kinds of foods are "staples"?

Mixing and Molding

TS9:31 Lead a class discussion on Teaching Aid 45, Bowls and Molds. KEY QUESTIONS: From what types of materials are mixing bowls for food service made? What different sizes and shapes are available? Why? What different mold shapes can you describe? What types of foods may be molded? NOTE: Molds are available for butter, shortbread, cheese, Charlotte, ice cream, chocolate, gelatin, and confections. From what materials are molds made?

Shaking and Straining

TS9:32 Lead a class discussion on containers which have holes through which food is shaken or which separates solids from liquids. Show examples and explain uses of each. If different types are not available in the laboratory, show Teaching Aid 46, Strainers. KEY QUESTIONS: When are sieves used? When are strainers used? What is special about a china cap strainer?

Cooking

TS9:33 Use Teaching Aid 47, Pots and Pans, and have students identify different pots and pans used in food service. Lead a class discussion on the difference in the sizes of the various pots and pans. Explain the correct uses of the pots and pans. KEY QUESTIONS: Which pans should be used for soups and sauces? What are uses of skillets? Which pans should be used for sauteing or cooking food in shallow fat? What are the uses for a sheet pan? What are the uses for baking pans? What are the uses for a brasier? What are the uses of a double-boiler?

TS9:34 Develop a *CONCENTRATION* game with pictures of pans on one set of cards and names of pans on the other set. Ask students to match the correct name to the picture of the pan. For more difficulty, add cards with descriptions or uses of the pans.

TRANSPORTING EQUIPMENT

TS9:35 Have students discuss the methods used for transporting food and equipment such as dishes and glassware in the laboratory or at their training station. Compare the methods discussed. KEY QUESTIONS: What three objectives are involved and how do they differ? How are they similar? What are the three major considerations in transporting food and supplies?

TS9:36 Discuss and demonstrate the proper use of carts to move items to and from the dining area in hospitals or for catering. Use Teaching Aid 48, Carts. KEY QUESTIONS: What are the advantages and disadvantages of each type? What special considerations should be taken in hospitals or nursing homes? in catering?

TS9:37 Take students on a tour of a restaurant or cafeteria and identify ways that foods are kept hot or cold. KEY QUESTIONS: What types of pitchers are used? Are samovars, chafing dishes, or rechaud lamps used? How do restaurants' warming dishes or equipment differ from those used by a cafeteria or catering service?

10

Food Preparation Equipment

COMPETENCIES TO DEVELOP

- Identify, select, and use large and small food service equipment.
- Clean, maintain, and store food service equipment and tools.
- Report equipment needing repairs to supervisor.

OBJECTIVES TO ACHIEVE

- Identify equipment used in food preparation.
- Outline uses of food preparation equipment.
- Summarize care procedures for food preparation equipment.

ASSIGNMENT

- Read Chapter 10 in the *Food Production, Management, and Services Reference Book.*

USE AND CARE OF FOOD PREPARATION EQUIPMENT

Scales

TS10:1* Look at pictures and discuss the different types of scales used in food preparation. Locate and identify the type of scales used in the food service laboratory or in the student's place of employment. KEY QUESTIONS: What are the differences in the types of scales used in food preparation? What types of food product does each scale measure?

TS10:2 Have students look at Teaching Aid 49, Portion Scales, to identify the various parts. After students have had time to learn the names of the parts, cover the names on the teaching aid and have students identify the parts as you randomly point them out.

TS10:3 Demonstrate the correct use of the various scales in food preparation. KEY QUESTIONS: When are scales used in food preparation? What is the function of the weight indicator? the scoop? the weighing platform? What is the correct procedure for cleaning the scale?

TS10:4 Have students practice using different types of scales by measuring foods. Set up stations with pre-measured food quantities and one of the different types of scales. Have students measure and record their measurements for each type of scale, then move on to the next scale and repeat until they have used each type of scale. Compare students' measurements to the pre-measured quantities you set up in the beginning. Discuss.

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*TS10:1 indicates Teaching Strategy, Chapter 10, Number 1

Can Openers

TS10:5 Have students look at pictures of an electric and a bench-mounted can opener. KEY QUESTIONS: What type can opener is used in the laboratory or the school cafeteria? What is the can opener used for? Is the can opener used to open both institutional-size cans and small-size cans? How does proper use of the can opener save time and energy? What are the differences in the two types of can openers?

TS10:6 Have students view Teaching Aid 50, Can Openers, and identify the parts of the bench-type manual can opener. Ask students to compare the picture with the can opener used in the laboratory or the student's place of employment. KEY QUESTIONS: What does the handle of the can opener do? What does the blade of the can opener do? What does the shank of the can opener do? What does the base of the can opener do?

TS10:7 Lead a class discussion on safety tips for using and cleaning can openers. Demonstrate cleaning the blade of the bench-mounted and the electric can opener. KEY QUESTIONS: What might happen if bits of metal fell into the food when a can is being opened? Why is it important to keep the blade clean? How do you remove and clean the shank? Why should the blade be inspected? How should the base be cleaned? What effect do acids from fruits and vegetables have on the can opener?

TS10:8 Have students read the manufacturer's directions on use and care of the electric can opener. KEY QUESTIONS: How is the cleaning of the manual and electric can opener similar? How is it different?

TS10:9 Divide the class into pairs to practice using and cleaning the can openers. Ask one student in each pair to inspect the can opener that the other has cleaned. Lead a class discussion on any problems that were encountered.

Food Slicer

TS10:10 Demonstrate the operation of the food slicer. KEY QUESTIONS: What safety precautions are absolutely necessary? Disassemble the food slicer as for cleaning. Have students name each part and identify its purpose. Teaching Aid 51, Food Slicer, may be used with this activity.

TS10:11 Write the steps for operating and cleaning the food slicer on the board, overhead, or flipchart. Have students practice following the steps to use the slicer. Provide small melons for the practice session. Then have students practice cleaning the slicer by following the written steps.

TS10:12 Lead a class discussion on the safety precautions listed on page 102 of the Reference Book. Divide the class into groups and have each group explain what might happen if a safety precaution were not followed when using or cleaning the food slicer.

TS10:13 Give students sample situations and have them report what procedures were violated in the situation and what safety precautions were observed. Situations may be similar to the following example: Jim was assigned the job of cleaning the meat slicer. He checked to see that the switch was off and pulled the cord to unplug the slicer. He used very hot water to clean the frame of the slicer and was careful not to let the water come in contact with the motor. Some food particles were still on the slicer blade so he used a knife to remove them.

Food Cutter or Chopper

TS10:14 Use Teaching Aid 52, Food Cutter or Chopper, to identify and locate the major parts of a food chopper as you demonstrate disassembling the chopper. Explain steps in safe use and care of the food chopper. KEY QUESTIONS: What is the function of each part? What foods can or cannot be cut with the food choppers? Why is it important to wait until the knives have stopped rotating to remove the food?

TS10:15 While supervised, have students use the food chopper to prepare a simple salad; allow them to serve samples to other students. Ask students to note and discuss the quality of the product. Again, under supervision, have students clean and reassemble the food chopper as directed.

TS10:16 Demonstrate the use of the food processor. Have students read the manufacturer's directions for the use and care and develop a list of rules to be followed. Ask students to identify special parts and functions of each. KEY QUESTIONS: What types of foods can be prepared in the food processor? What are the advantages of using the processor over using the food cutter or chopper?

TS10:17 Have students experiment by chopping cabbage for slaw in the food chopper and in the food processor. Ask them to compare the cabbage prepared with both tools. KEY QUESTIONS: Which product is the most satisfactory for slaw? Which equipment is the easiest to use and clean? Which one completes the job in the least amount of time?

Vegetable Peeler

TS10:18 Tour a food service establishment that uses a vegetable peeler. Have students observe a food service worker operate the vegetable peeler. KEY QUESTIONS: How does the vegetable peeler work? Why are vegetable peelers not as common as they once were?

General

TS10:19 Have students select a piece of cutting equipment and write step-by-step operation and care rules for its use. Flip charts, posters, or notebooks may be developed to share with the class.

TS10:20 Have students make posters illustrating the safety precautions related to the use and care of food cutting equipment. Display the posters in the laboratory or have students display their posters at their training stations with the employer's permission.

Mixing Equipment

TS10:21 Use Teaching Aid 53, Mixer Parts, and have students identify the parts of a mixer. Call out each part name and have students point out its location. Lead a class discussion on the types of mixers. Have students describe differences in floor, bench, and table models. Ask them to identify the type mixer shown in the visual and the one in the laboratory or training station. Lead students to compare the parts of each type. NOTE: To simplify the activity, a handout may be developed and students may color in the parts as you name them. (Example: "Color the mixer bowl blue.")

TS10:22 Demonstrate the use of the mixer in the lab. KEY QUESTIONS: What is the correct way to plug-in and unplug the mixer? How do you use the on/off switch? How do you change speeds? How do you put the bowl on the mixer? How do you take the bowl off the mixer? What can happen if the bowl is filled too full? What may happen if too high a speed is used with a stiff dough or heavy batter? What will happen if the gears are not changed correctly?

TS10:23 Use Teaching Aid 54, Mixer Agitators. Demonstrate uses for each agitator. (Examples: WIRE WHIP for frostings and whipped cream, DOUGH HOOK for bread or doughnuts, FLAT BEATER for mashed potatoes, PASTRY KNIFE for pie crust.)

TS10:24 Ask each student to reach into a box filled with mixer agitators, draw one out, and explain its uses to the class. Allow other students to help provide the explanations when necessary.

TS10:25 Explain and demonstrate how to put the agitators on the mixer and how to remove them. Have the class stand in a semicircle around the mixer. Each person will have a turn at putting on and taking off each agitator. NOTE: Repeat until each student can put the agitators on the mixer and remove them efficiently.

TS10:26 Demonstrate the correct procedure for cleaning the mixer. KEY QUESTIONS: How should bowls and beaters be washed? What parts cannot be put in water? How are these parts cleaned?

TS10:27 Divide the class into pairs and have students take turns describing to each other the correct way to clean the mixer.

TS10:28 Have students develop a list of safety guidelines to observe when using the mixer. Discuss the lists in class and revise if necessary.

TS10:29 Assemble pictures of foods that could be prepared by using the mixer. Place the pictures in a bowl and ask each student to draw one. Have the students tell the class what food they have drawn and answer the following questions about it: Which agitator would you choose to mix the food? Why would you use that particular agitator? Would another agitator work as well? Could you use more than one kind of agitator for the task?

Blender

TS10:30 Invite a service representative to demonstrate the use of a blender. Ask the representative to include the following key ideas: parts of the blender, safety precautions, uses of various speeds, and procedures for cleaning the blender.

TS10:31 Have students view Teaching Aid 55, Blender. Divide the class into two teams for practice in identifying parts of an actual blender. The first member of Team One attempts to identify the part of the blender pointed to by the teacher. If the answer is incorrect, the first member of Team Two may try. Alternate questions between teams until each member has an opportunity to play. Play as fast as possible. A correct answer earns one point for the team. Any student who answers out-of-turn causes a one point forfeit for the team. NOTE: This game may be adapted for learning parts of any type of commercial kitchen equipment.

TS10:32 Have each student choose one of the following questions, find the answer, and report to the class.

- How full may a blender be filled?
- How may ingredients be added when the blender is running?
- What are some jobs a blender can do?
- How should a blender be cleaned?
- How do you determine the speed to use in preparing various foods?
- How long should foods be blended?

TS10:33 Work with the class to develop a checklist of safety rules to follow when using and cleaning the blender. Write the list on the chalkboard or on a large poster for display. Then have students work with a partner to prepare a simple food item using the blender. One partner does the work while the other partner observes and records whether or not each item on the safety checklist is accomplished. After the food is prepared and the blender cleaned, conduct a Safety Inspection using the student checklist.

TS10:34 Set up a display of instruction booklets for information on the use and care of mixing equipment. Have students read the booklets to find out what safety procedures are stressed by the manufacturers for each type of mixing equipment. Ask students to list the safety procedures for each type of equipment and turn in the list for evaluation.

Beverage

TS10:35 Have students discuss the types of beverage equipment used in the laboratory or at their training station. Do all food service institutions use similar equipment?

Coffee

TS10:36 Prepare a poster with pictures of various types of coffee makers cut from commercial equipment catalogs. Display the poster and discuss the names of the different types of coffee makers with students. KEY QUESTIONS: What type of coffee maker is available in your lab? What feature does an urn have?

TS10:37 Use Teaching Aid 56, Coffee Brewer. Have the students examine an actual coffee brewer of similar design and ask them to identify the parts.

TS10:38 Demonstrate the correct procedure for cleaning the coffee brewer. Include the following:

Daily Cleaning

- Rinse the serving pot with water between batches of coffee.
- At the end of the day, empty the serving pot and wash it in a hot detergent solution.
- Rinse the serving pot thoroughly.
- Clean the coffee brewer with a damp cloth or an all purpose cleaner.
- Dry the coffee brewer.
- Replace the serving pots.

Periodic Cleaning

- Using manufacturer's instructions as a guide, run a special cleaner or a mixture of vinegar and water through the coffee brewer to clean it thoroughly.

Tea Dispensers

TS10:39 Have students view pictures of tea dispensers. KEY QUESTIONS: How does each dispenser work? How do you clean each dispenser? Teaching Aid 57, Cleaning Procedures for the Tea Urn, includes step-by-step directions for cleaning the tea urn.

Cold Beverage Dispensing Machine

TS10:40 Use Teaching Aid 58, Cold Drink Dispenser, and discuss how to use and care for the machine. KEY QUESTIONS: What other automatic beverage dispensers are used in food service? How often do dispensers for dairy products need to be cleaned?

TS10:41 Have students view pictures of various models of ice makers. Use Teaching Aid 59, Ice Machines. Have students identify the type of ice machine located in the laboratory, the school cafeteria, or their training station.

TS10:42 Demonstrate the procedures for operating and cleaning the ice maker. KEY QUESTIONS: How often must the ice maker be defrosted, dismantled, and cleaned? Why is a bristle brush more effective in cleaning the ice maker than a sponge or cloth?

TS10:43 Explain sanitary use of the ice machine. KEY QUESTIONS: What tool should you use to remove ice from the ice machine? Where should the ice scoop be stored? Should the ice scoop be placed in a sanitizing solution? Why? Why should you wash your hands before using the ice machine? Is it ever acceptable to use your hands or a glass to scoop ice? Why?

TS10:44 Use Teaching Aid 60, The Decision Is Yours, to increase students' awareness of correct and incorrect procedures for using ice machines.

TS10:45 Explain the steps for cleaning the ice machine. NOTE: Refer to manufacturer's instruction manual for specific directions. KEY QUESTIONS: What needs to be done to clean the ice machine? How often should the ice machine be cleaned?

General cleaning procedures include the following:

- At least once a month, or more often if frost build-up is heavy, defrost and take apart the ice maker.
- Use a cleaning solution and a good nylon brush to clean all parts of the ice maker, both inside and out. This is called deliming.
- Rinse the ice maker thoroughly.
- Make sure the water lines are attached.
- Put the ice maker back together.

USE AND CARE OF COOKING EQUIPMENT

Range Top

TS10:46 Have students view Teaching Aid 61, Range Tops. KEY QUESTIONS: For what purposes is the range top used? What is the difference between gas and electric range tops? What type of range has a solid top?

TS10:47 Demonstrate the proper methods of using and cleaning the range top. KEY QUESTIONS: Are burners automatic, or must matches be used? Is the gas turned on before or after lighting the match? Why? How much of the surface of the solid top range should be used for cooking? What top-of-the-range cooking methods help keep the kitchen cool and save fuel? Why must grease not be allowed to build up on a range top? Why is the amount of heat selected important?

TS10:48 Have students pretend that they are responsible for teaching a new employee how to clean the range top. KEY QUESTIONS: What would you say? How do you know when the range top needs cleaning? How often should the range top be cleaned? What temperature should the range top be before you try to clean it? What steps for the daily cleaning of the range top should be followed? Are there steps that are done weekly? What are they? NOTE: The questions and answers could be done in a role play or written answers could be prepared.

TS10:49 Have students practice operating the range top using the correct temperatures and the correct pan for the food being cooked. Arrange pots and pans correctly according to burner size. Students might practice by preparing a vegetable, eggs, or a one pot meal.

Griddle

TS10:50 Have students look at pictures of various models of commercial griddles. Then examine an actual griddle in the laboratory, school cafeteria, or another location. Have students look at the thickness of the plate, the thermostatic control, the splashboard height, and the width of the grease trough. Discuss what foods can be prepared on the griddle.

TS10:51 Use Teaching Aid 62, Griddles and Grills, and lead students to identify the various parts and their location on the griddle. KEY QUESTIONS: What happens to the grease drains in the grease trough? How is a grill "seasoned"?

TS10:52 Demonstrate the safe use and care of the griddle, or invite a qualified person to do the demonstration. Ask students to closely observe the following: temperature control, oiling of the grill, cleaning with a spatula, grill screen or griddle brick use, the cleaning techniques used, and reseasoning.

TS10:53 Tour a fast food operation to observe griddle use. KEY QUESTIONS: What safety precautions did the griddle operator observe? Why did the griddle operator observe each safety precaution? Why is it important to follow safety precautions?

TS10:54 Have students practice using the griddle by operating a "pancake house" for customers. Serve a variety of pancakes at a breakfast for teachers. Or serve a hamburger lunch, a bacon sandwich lunch, or a bacon and egg breakfast. Ask students to calculate costs and charge the customers enough to recover the cost of the food.

Broiler

TS10:55 Show students Teaching Aid 63, Broilers, and explain what kinds of food are prepared on this equipment. Ask students to name the parts of the broiler.

TS10:56 Have students role play the position of a commercial food equipment representative trying to sell a new broiler to a restaurant owner. Ask them to explain all the parts of the broiler and their uses.

TS10:57 Have students work in teams of two or three to prepare simple foods, such as hamburger patties, toasted cheese sandwiches, or tuna burgers. Observe the students' work to make sure they are following safety procedures. Evaluate individual work habits.

Deep Fat Fryer

TS10:58 Use Teaching Aid 64, Deep Fat Fryer. Explain the parts and what each does. Have students list food products that can be prepared in the deep fat fryer.

TS10:59 Have students listen to taped directions for use of the fryer. Lead a discussion on points covered. KEY QUESTIONS: Why is it necessary to start the fryer prior to frying time? What is the usual range of frying temperature for most foods? How can you tell when the proper temperature has been reached? Why are breaded items shaken after they are placed in the basket? Why is this process not done over the fryer? What is the holding temperature for the fryer between batches? What portion of the oil should be filtered first? What type solution can be used to clean the fryer?

TS10:60 Demonstrate the steps for cleaning the deep fat fryer. KEY QUESTIONS: What are the steps in cleaning the deep fat fryer? How should burned-on grease be removed? How should carbon be removed from the heating elements? How often should this be done?

TS10:61 Ask students to sit in a circle. Go around the circle with each person naming a safety precaution for using the deep fat fryer. After the circle is complete, summarize the safety precautions for using the deep fat fryer on the board, making sure they include the following:

- Always put items to be fried into baskets before the baskets are put in the hot fat.
- Keep deep fat fryer below 300°F. when not in use for short periods.
- To avoid overheating and causing a grease fire, do not leave deep fat fryer on for long periods of time.
- Wear heavy gloves when removing fat filled tubs.
- Wear the proper clothing. Do not wear sleeves or jewelry which hang down.

Exhaust Hood

TS10:62 Have students examine the exhaust hoods in the laboratory or in other food service facilities. Have the students identify the parts and explain how and when to use the exhaust fan. Where are exhaust hoods located?

TS10:63 Demonstrate the operation and care of the exhaust system located in the lab or the school cafeteria kitchen. KEY QUESTIONS: Where are the On an Off switches located? What kind of filters are used? Are the filters replaced when dirty, or cleaned? How often should the filters be checked? Where is the light bulb located and how is it replaced? Why is it important to keep the exhaust hood clean and free from grease build up?

Steaming Equipment

TS10:64 Show students Teaching Aids 65a, Compartment Steamer, and 65b, Steam Jacketed Kettle, or other pictures or diagrams of steam type cooking equipment. Explain how the steam jacketed kettle cooks food and how the steamer cooks food. KEY QUESTIONS: What differences are there in the steam jacketed kettle and the steamer? What is the purpose of the gauge? Is a steamer powered by gas or electricity? What food can be cooked in a steamer? How do pressure and temperature relate in the steaming process?

TS10:65 Take students on a tour of the school cafeteria or another food service establishment and look at the type of steam equipment that is used. Arrange for someone to point out the major parts of the steam cooking equipment and demonstrate correct use.

TS10:66 Have students prepare a chart on procedures for using and for cleaning the pressure sauce pan, the steam jacketed kettle, and the steamer. Ask them to include safety features and procedures.

TS10:67 Ask students to pantomime what to do in case of steam equipment failure or malfunction. (Examples include steam leaking past the door gasket on a steamer or steam kettle pops and jumps.) Have students list safety precautions that should be followed in each situation.

TS10:68 Lead a class discussion on accidents that may have occurred in students' training stations or the laboratory involving steam equipment. How might each accident have been prevented?

Baking and Roasting

TS10:69 Use Teaching Aids 66a, Ovens; 66b, Reconstitution Oven; and 66c, Microwave Oven; or show pictures of ovens from a food service equipment catalog. Lead a class discussion on the various types of ovens including regular, stack, convection, carrousel, hearth, pizza, reconstitution, microwave, impingement, and infrared. KEY QUESTIONS: How do the ovens differ? Which ovens use gas? Which are electric? What are the advantages and disadvantages of each type of oven?

TS10:70 Divide the class into several cooperative learning groups. Have each group summarize the characteristics of one type of oven, describe the advantages of that oven, and list the kinds of foods that can best be prepared using the particular oven. Ask each group to report to the class.

TS10:71 Take the class on a field trip to see different types of ovens. Have an expert explain their uses and demonstrate, if possible.

TS10:72 Conduct an oral question and answer session on the procedures for using ovens. Have students answer the following questions: When do you bake in a commercial oven? When should the high temperature setting be used? Why should the oven be preheated? Do all types of ovens need preheating? Why should you avoid opening an oven door during baking? What is the procedure for cleaning an oven? What safety precautions need to be followed when using the different types of ovens? NOTE: Questions asked may be directed to one specific type oven or may be general questions.

TS10:73 Assist students in conducting an experimental lab in which the same foods are cooked in a regular oven, a convection oven, and a microwave oven. Have students compare the time required to cook the food, the taste, the texture, and the color of the cooked food. KEY QUESTIONS: Which oven's product was the most acceptable? What factors determine which oven to use?

TS10:74 Have students work in cooperative learning groups to develop a list of steps for cleaning a specific type of oven and then explain the steps to the class. Be sure students have included the correct type of cleaning agent for the assigned oven type and any safety precautions related to the cleaning agent.

TS10:75 Explain the operation of a convection oven and how it differs from a regular oven. Include a demonstration and cleaning techniques.

TS10:76 Lead a class discussion on the types of food that can be baked in a convection oven. Have students create a bulletin board showing foods that are appropriate for the convection oven. Discuss the advantages and disadvantages of the convection oven.

TS10:77 Have students examine pictures of various models of microwave ovens. Ask them to locate parts common to most models and parts that are different on the various models. Lead students to say the names of the parts in unison as they are pointed out.

Microwave Ovens

TS10:78 Demonstrate how to use the microwave oven and how to set the timer for the different cooking powers and for defrosting. NOTE: If the timer is a knob type and difficult for disabled students to grasp, refer to Teaching Aid 67, Adaptation for Easy Grasp of Timer, for information on attaching a small dowel stick to the knob.

TS10:79 Show the class the types of materials such as glass, paper, some ceramics, and plastic that may be used for cooking in the microwave oven. KEY QUESTIONS: What types of materials should not be put into the microwave? How can one determine if a dish should be put in the microwave?

TS10:80 Lead a class discussion on safety related to using the microwave oven. Include information on avoiding burns from using the wrong cookware, damaging the oven by using metal cookware, and the hazards to persons using pacemakers.

TS10:81 For review, have students sit in a circle. The first person explains the first step in oven use and care after the teacher calls out the type of oven. If the step is correct, the turn passes to the next person on the left. If the step is incorrect, the turn passes to the next person on the right. Continue around the circle until the review is completed. NOTE: Change the type of oven when all steps in use and care of one type have been covered.

Toasters

TS10:82 Show the class pictures or actual examples of the two types (a four-slot and a conveyor) of commercial toasters. Teaching Aids 68, Conveyor Toaster, and 69, Steps in Cleaning the Toaster, may be used if desired. Have students locate and identify parts on each type.

TS10:83 Have students observe a worker using a conveyor toaster in the school cafeteria or in another food service facility. Discuss the major safety rules for using the conveyor toaster including keeping fingers clear of the elements and keeping hands dry.

TS10:84 Use Teaching Aid 69, Steps in Cleaning the Toaster, to make picture flashcards. Ask students to arrange the pictures in the correct order. NOTE: This activity might be useful for disabled students or students with a low reading level and could be used as an evaluation device. Other activities could be adapted to this format.

TS10:85 Demonstrate or discuss cleaning the conveyor toaster. Include the following:

- Disconnect the cord before cleaning.
- Use a clean damp cloth and a non-abrasive cleaning agent.
- Prevent water from reaching elements.
- Clean the crumb tray.
- Boil the baskets.
- Reassemble the toaster.

TS10:86 Conduct a Toast Nook for teachers or students in other classes. Prepare and sell orders for several varieties of toast including butter, raisin, cinnamon, and plain.

Serve the toast orders with coffee or hot chocolate. NOTE: Prices should be reasonable, but food and supply costs recovered. Students should be involved in determining the amount to be charged based on estimated expenses.

11 Cold Storage, Serving and Cleaning Equipment

COMPETENCIES TO DEVELOP

- Identify, select, and use large and small food service equipment.
- Clean, maintain, and store food service equipment and tools.
- Report equipment needing repairs to supervisor.
- Control and improve sequence of operations.

OBJECTIVES TO ACHIEVE

- State procedures for proper use and care of cold storage equipment.
- List appropriate procedures for use and care of holding and serving equipment.
- Describe procedures for use and care of cleaning and disposal equipment.
- Identify work stations and plan the placement of equipment in these stations.

ASSIGNMENT

- Read Chapter 11 in the *Food Production, Management, and Services Reference Book.*

PROCEDURES FOR PROPER EQUIPMENT USE

TS11:1* Have students locate pictures of different types of refrigerators in a food service equipment catalog. Include walk-in, roll-in, reach-in, and pass-through refrigerators. Lead a class discussion on how they differ.

TS11:2 List foods that should be stored in the refrigerator. Then have the students do the following experiments:

- Put a small amount of milk in each of two air tight containers. Place one container in the refrigerator and leave one out.
- Cut two equal wedges of lettuce. Cover each wedge with a damp paper towel. Place one wedge in the refrigerator and leave one out.
- Divide four ounces of ground meat into two patties. Place one patty in the refrigerator and leave one out.

The next day, remove the milk, lettuce, and meat patty from the refrigerator. Compare these to the foods that were not refrigerated. Are there any differences between the refrigerated foods? Are the two meat samples different colors? Do the two milk samples smell alike? Is the unrefrigerated lettuce as crisp as the refrigerated lettuce? What are some of the reasons for refrigerating foods? What food is refrigerated at the lowest temperature? Define refrigerator.

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* TS 11:1 indicates teaching strategy, chapter 11, number 1.

TS11:3 Lead a class discussion on reasons for refrigerating food. (Examples include: to prevent spoilage, improve taste of some foods, preserve for a longer period of time, and improve texture or add crispness.)

TS11:4 Demonstrate the proper procedures for cleaning the commercial freezer and refrigerator. Note the importance of cleaning up spills in a walk-in freezer or refrigerator; the importance of using soda instead of detergents for cleaning a reach-in refrigerator; and the importance of observing the temperature gauge or dial in the laboratory refrigerator and freezer.

TS11:5 Lead a class discussion on foods that may be stored in the freezer and the length of time each type of food can be stored. Name foods that should always be kept frozen until used or served. KEY QUESTIONS: What might happen to frozen foods held above 0°F.? What is freezer burn? How soon should you use thawed foods?

TS11:6 Demonstrate how to use a thermometer to check the temperature in the refrigerator and freezer. What is the correct temperature for each? Have students check and record the temperature for the refrigerator and freezer. NOTE: A large cardboard thermometer could be made for practice in reading, especially for visually impaired students.

TS11:7 Use Teaching Aid 70, Cleaning the Refrigerator or Freezer, and develop flashcards on steps for cleaning the refrigerator or freezer. Have students arrange the cards in the correct order; then, explain the steps and why each is important.

TS11:8 Have students list the cold storage equipment used at their training station or in the laboratory. KEY QUESTIONS: What procedures are followed when using freezers and refrigerators at your training station or laboratory? What procedures should be followed in the care of these pieces of equipment?

USE AND CARE OF HOLDING AND SERVING EQUIPMENT

Hot Food Server

TS11:9 Have students view Teaching Aid 71, Food Warmers. Lead them to explain the differences in, and uses of, each type.

TS11:10 Have students take a learning tour of the school cafeteria and other food service facilities. Have students make a list of the types of hot holding and serving units available. NOTE: Students may want to tour a hospital kitchen and observe the methods used for keeping food hot while it is being distributed to patients.

TS11:11 Display Teaching Aid 72, Advantages and Disadvantages of Hot Holding and Serving Units. Have students read the Reference Book and add additional hot holding and serving units to the chart. Items to be added include the bain-marie, heated pass throughs, heated carts, and heated pellets.

TS11:12 Demonstrate the use and care of hot holding and serving equipment. Have students take turns role playing the part of a supervisor instructing a new employee on the procedure for use and care of hot holding and serving equipment.

Cold Food Server

TS11:13 Have students look through commercial equipment magazines and find the names and types of cold-food holding and serving units.

TS11:14 Tour the school cafeteria. Note the type of cold food holding and serving units used. After returning to class, list on the board the foods served in the cafeteria that required cold holding and serving. NOTE: Combine observations of both hot and cold holding and serving in one tour.

TS11:15 Use Teaching Aid 73, Cold Holding and Serving Units. Invite an equipment company representative to describe the use and care of cold food holding and serving units. Lead a class discussion on the advantages and disadvantages of each type.

TS11:16 Have students develop cartoons illustrating a customer's reactions to a salad case covered with finger prints; a hair in the ice in the cold bain-marie; and hardened whipped cream on the racks of the cold cabinet. Display the cartoons in the room. Demonstrate and discuss cleaning procedures.

TS11:17 Ask students to survey several persons on the topic, "What Bugs Me Most About Restaurant Food." Have them present the findings to the class. How many times was food served at the wrong temperature listed as a complaint? How could this have been prevented? Which type of food warmer or cooler should be used?

TS11:18 Instruct students to write a paragraph on each piece of holding and serving equipment used at their training station or in the school laboratory. Tell them to describe the equipment and its use and care. Collect the papers for evaluation.

TS11:19 Ask students to discuss with other food service and dietary employees the charts on the pieces of holding and serving equipment. Have them check to see if improvement can be made in their duties when using and caring for the holding and serving equipment. Lead students to discuss conclusions.

USE AND CARE OF CLEANING AND DISPOSAL EQUIPMENT

Disposer

TS11:20 Explain the difference between trash and garbage. Show the class the containers in your classroom and in the food service laboratory that are used to hold trash and the containers used for garbage. What is the difference between trash and garbage? What does the garbage can in your laboratory look like? What does the trash can in the food service laboratory look like? Do the cans have lids? Why?

TS11:21 Duplicate Teaching Aid 74, Trash or Garbage Cans, and have students write either trash or garbage on each can in the laboratory or cafeteria. Discuss the students' selections in class and clarify any misconceptions.

TS11:22 Explain the garbage disposer and tell about its safe use and parts. Demonstrate the proper use of the commercial disposer and rinse sinks. KEY QUESTIONS: What two factors are absolutely necessary for proper operation of the disposer? Why should the disposer be filled before starting the motor? Who is responsible for keeping the counter section clean? What waste items must not be put down the disposer? How long should the disposer run after the grinding action is complete? Why?

TS11:23 Use Teaching Aid 75, Steps for Operating the Garbage Disposer, and make a set of flashcards for the steps in using the garbage disposer. Shuffle the cards. Have students arrange the pictures in the correct order.

TS11:24 Using pictures of the steps for operating the garbage disposer (TS11:23), explain for your class the way to use the garbage disposer shown in the picture. KEY QUESTIONS: Which should be turned off first, the garbage disposer or the water? Why should the water be allowed to run for about a minute after the disposer is turned off?

TS11:25 Explain safety measures related to the garbage disposer. Have students prepare a chart listing safety rules or prepare comic posters to be displayed by the disposer each week. KEY QUESTIONS: Why is it important to keep your hands away from the garbage disposer? Should you push food into the disposer when it is running? Should you put bones in the garbage disposer?

TS11:26 Have students role play or tell what they would do in the following situations: money falls into the disposer; water is leaking from the seal; the disposer is jammed; the disposer is making a grinding noise; or the water in the sink begins to back up.

TS11:27 Have students view the pot and pan sink in the lab or a food service establishment. Explain pot and pan washing procedures. KEY QUESTIONS: Where are each of the following procedures done - soaking, washing, rinsing, sanitizing - if there are two sinks? three sinks? How can the fill line be marked? What is the purpose of the booster heater?

Commercial Dishwasher

TS11:28 Have students view pictures or transparencies of the various commercial dishwashers. Note whether baskets or racks are used with each. Identify the type of dishwashing machine available in the food service lab. KEY QUESTIONS: What is the difference between single- and multiple-tank machines? What are the most common types of single-tank? What is a flight-type machine?

TS11:29 Show and explain the two types of racks found in dish machines. Have students view Teaching Aid 76, Dish Machine Racks. KEY QUESTIONS: What types of items go on pegged racks? What type of items go on flat racks?

TS11:30 Demonstrate how to load the dish racks. Hold up various items, and have students decide which rack it would be placed on. KEY QUESTIONS: Does the item need to be laid flat in order to be thoroughly cleaned? Does the item need to be placed securely on or between pegs?

TS11:31 Have students watch a demonstration of the commercial dishwasher as a cafeteria worker loads and operates it. Identify the major parts of the dishwashing machine and note how they operate. KEY QUESTIONS: How does the dishwasher sanitize dishes? What type of detergent is used in the machine? Why are drying agents used? What things about the use of hot water are important to remember? What dishes do you prerinse? Why should you mix knives, forks, and spoons? What are the scrap trays used for? What temperatures are critical?

TS11:32 Instruct students to work with a partner to rack dishes, add measured amounts of detergent, and adjust controls. After loading, have students start the machine. After machine's cycle is complete, ask students to remove the dish rack, inspect the dishes for complete food removal, load dishes onto cart or tray, and return them to their proper place of storage. Explain safety tips related to the dishwashing machine. KEY QUESTIONS: Why can a machine that uses hot water be dangerous? Why can an electric dishwashing machine be dangerous? Why can detergent be dangerous? Why should dishes and glassware be handled carefully at all times? Why is the power switch turned off before the machine is cleaned? Why is it important to clean the floor immediately when something is spilled?

TS11:33 Have students form a line at the sink. Place a spot of detergent in the first person's hand, let it remain until it feels warm to the person's hand, then have the person wash the hand thoroughly. Continue throughout the line. Make sure students do not try to taste the detergent. Explain that detergent could seriously burn the eyes. Explain what to do if detergent accidently gets in the eye. KEY QUESTIONS: Why does the detergent feel hot on the skin? What should be done if detergent gets in the eye? What should be done if detergent gets on the skin?

TS11:34 Have students watch as an experienced operator demonstrates cleaning the dishwashing machine. KEY QUESTIONS: Why do you turn off the power switch? What parts do you take out and clean? How often do you clean the dishwashing machine? What types of cleaning should be done after each meal? What types of cleaning should be done weekly? Why is it important to turn the heater off before cleaning? Are the curtains cleaned while hanging or are they removed from the machine? Must the arms be removed for cleaning? What is the best tool for removing particles from the openings on the arms? What method is used for cleaning the scrap trays? How can the inside of the dishwasher be reached for cleaning? Why are the drain cap and overflow vent the last items to be cleaned?

TS11:35 Have students prepare step-by-step instructions for cleaning the dishwashing machine used at the student's place of employment or in the laboratory. Hang the instructions near the dishwashing machine, if possible, for future reference.

TS11:36 Have students compare the type of dishwashing machine used at their training station with the types used by other health care and food service employees.

TS11:37 Analyze the procedure used to wash dishes at the students' training stations or the school laboratory. What can be done to improve the organization of this task? Develop a list on the board telling ways it can be improved.

WORK STATIONS

TS11:38 Divide the class into cooperative learning groups. Have each group select a work station to report on in class. Explain where it would be located and what is done there. Discuss as a class. KEY QUESTIONS: How is the number of work stations in a restaurant determined? What direction is the work flow? How is the placement of equipment planned?

12 Food and Supplies

COMPETENCIES TO DEVELOP

- Receive and inspect food and supplies.
- Complete receiving records.
- Prepare food and supplies for storage, and then store.
- Maintain storage facilites at optimum conditions for food preservation.
- Issue and rotate food and supplies.

OBJECTIVES TO ACHIEVE

- Identify the forms and qualities of food available.
- Describe the purposes and uses of food specifications.
- Identify the types of supplies used in food service.
- Describe procedures for receiving and inspecting food and supplies.
- Outline procedures for storing food and supplies.
- Explain requisitioning procedures used in food service.
- Summarize procedures for inventorying food and supplies.

ASSIGNMENT

- Read Chapter 12 in the *Food Production, Management, and Services Reference Book.*

FORMS AND QUALITY OF FOODS

TS12:1* Take students on a learning tour to a wholesale food forms and quality company or invite a representative of the company to discuss food purchasing, forms of food, and quality with the class. NOTE: If a wholesale food company is not available, visit a retail grocer. KEY QUESTIONS: What is processing? What forms do various foods come in? What are specifications? What convenience foods are used in food service? Who determines the wholesomeness of food?

TS12:2 Use Teaching Aid 77, USDA Grade Labels, to start a discussion on food grading. Have students find information on stamps used to indicate grade and qualities that must be met for foods other than poultry and eggs.

TS12:3 Bring cans without labels to class and ask students to tell what is in the cans. Explain the importance of labels and develop a list of what information is included on a label. KEY QUESTIONS: What is a government standard food? When is the word imitation used? Is nutrition labeling required on all foods?

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* TS 12:1 indicates teaching strategy, chapter 12, number 1.

TS12:4 Have each student bring actual food product labels to class. Ask students to identify the parts of a label. Have students practice finding specific information (such as the weight, company name, UPC code, serving size, nutrients, and % daily values) on several labels.

TS12:5 Display Teaching Aid 78, Food Labels, and have students identify the parts of the label. Lead a class discussion about the nutrition facts label for chili with beans. KEY QUESTIONS: Which vitamins and minerals are listed on the nutrition facts label? What is meant by percentage daily values? From what daily intake of calories are percentage daily values based? CRITICAL QUESTION: How would each figure on the nutrition fact label change if the serving size were increased by 1/2 cup?

FOOD SPECIFICATIONS

TS12:6 Invite a food service manager to discuss with the class the correct way to order food and supplies. Ask that the importance of written specifications, standards of products, and supplies needed be included in the presentation. Encourage students to develop a list of questions prior to the presentation.

TYPES OF SUPPLIES

TS12:7 Tour a food service establishment. Have each student look around the establishment and make a list of supplies they feel will need to be periodically ordered. Compare the students' lists with the supply order list of the establishment. KEY QUESTIONS: How did the list compare? Were only disposable items listed? What specifications are needed?

RECEIVING FOOD AND SUPPLIES

TS12:8 Have students role play receiving an order. Sample receiving situations may include the following: order is received short, receiving clerk does not weigh order, correct method of receiving, blind method of receiving, food received is of poor quality, checking the order, and using sample receiving records and forms.

TS12:9 Demonstrate and discuss how to check the quality of goods received. Include fresh fruits and vegetables, perishable foods, frozen items, and canned foods.

TS12:10 Divide the class into cooperative learning groups. Each group may select a type of food and develop a poster of guidelines for receiving, inspecting, and storing the food. Include meat, poultry, seafood, eggs, dairy products, fruits and vegetables, frozen, dried, and canned foods.

TS12:11 Using the example, "Receiving sheets," from page 138 of the Reference Book, make up a receiving report form. Laminate the form so that students can practice filling it out. Have them work in pairs to check their completed forms. NOTE: Provide a grease pencil for students to write with on the laminated form. The writing can then be wiped off and another student may practice on the same form. This can be done with all types of order or receiving forms.

TS12:12 Ask students' training sponsors for sample forms used in receiving and issuing supplies at their business. Have students study these forms and practice filling them out correctly. Compare the forms used at different training stations to those shown in the unit.

TS12:13 As a class, discuss and compare the methods, records, and forms used to receive and issue supplies in various food service operations. KEY QUESTIONS: Why are receiving records necessary? Who is responsible for completing these records?

STORAGE OF FOOD AND SUPPLIES

TS12:14 On the board or overhead, show how perishable and supply merchandise should be marked as it is received. KEY QUESTIONS: What information is needed? Why is marking done? How is first-in, first-out related to marking?

TS12:15 Demonstrate how to wrap foods to keep them clean. KEY QUESTIONS: What type of material is needed? What special considerations should be taken when using carts for transporting food?

TS12:16 Divide the class into three groups. Have each group select one of the major storage areas (refrigerator, freezer, and dry foods) and develop a presentation explaining reasons for location of the storage area, temperatures needed, cleaning, maintenance, safety, and sanitation.

TS12:17 Take students to a food service establishment. Have students observe the three types of storage areas and note foods that are stored in each area. KEY QUESTIONS: Where are non-food items stored? Where are spices and seasonings stored? Is the storage area near the area where preparation will occur? Who is responsible for cleaning the storage areas? How frequently is each area cleaned?

TS12:18 Have students use a thermometer to check the temperature of a commercial refrigerator and a freezer. Instruct them to refer to pages 140-141 of the Reference Book and create a bulletin board with tips for safe and efficient refrigerator and freezer storage.

TS12:19 Lead a class discussion on cleaning procedures for storage areas. Divide the class into groups, and have each group clean a storage area according to what was discussed.

TS12:20 Have students describe the storage procedures used in the lab. KEY QUESTION: After studying the unit, how might procedures be improved to maintain the quality of products or make it easier to fill requisitions for supplies?

REQUISITIONING

TS12:21 Give student sample requisition forms and have them pull orders. NOTE: Some of the forms might have unclear items listed to stress the importance of specifications.

SUPPLY INVENTORY

TS12:22 Have students outline the procedure used at their "supplies" training station for inventory of supplies on hand and explain the procedure to the class.

TS12:23 Lead a class discussion on the difference between physical and perpetual inventories. Have students develop a chart explaining the procedures for inventorying. Lead them to compare the procedures on the charts.

13

Food Preparation Techniques

COMPETENCIES TO DEVELOP

- Adjust standard recipes to serve more or fewer persons than indicated.
- Read and follow recipe instructions.
- Use food preparation and service terms correctly.
- Assemble and prepare ingredients (or suitable substitutes) and equipment.
- Measure and weigh foods according to specifications in standard recipes.
- Use a variety of cooking techniques.
- Identify, use, and store spices, herbs, and extracts properly.
- Utilize convenience foods in food preparation.
- Use correct time and temperatures for energy-efficient food preparation.
- Set up and maintain individual work area utilizing time- and energy-saving techniques.

OBJECTIVES TO ACHIEVE

- Identify the information contained in a standard recipe.
- Recognize abbreviations used in standard recipes.
- Describe standard substitutions for ingredients.
- Cite equivalents commonly used in food preparation.
- Cite common can sizes and their approximate yields.
- Define food service terminology.
- Adjust recipes to increase or decrease the yield.
- Describe techniques which develop speed and accuracy in recipe use.
- Describe the five categories of cooking used in food preparation.
- Identify seasonings used in food preparation.
- Describe sanitary procedures for tasting food.
- Describe the use of convenience foods in food service.
- Describe work simplification techniques used in food service.
- Describe procedures for portioning foods.
- Outline procedures for plating food.
- Summarize considerations for garnishing food.

ASSIGNMENT

- Read Chapter 13 in the *Food Production, Management, and Services Reference Book.*

STANDARD RECIPES

TS13:1* Have each student write a definition of recipe. Have them compare their definitions to the following: "A recipe is a formula for making a dish in cookery, a means prescribed for producing the desired result." KEY QUESTIONS: What is meant by the term "standardized recipe"? Why are standardized recipes used in food service? What are ingredients? What information is included in a standardized recipe?

TS13:2 Have students look at Teaching Aid 79, Recipe Components. Show students how to locate the following information on the recipe:

- Name of dish to be made
- Yield (number of servings) the recipe will make
- Ingredients
- Amounts of ingredients
- Cooking method and temperature
- Cooking time
- Method of preparation
- Type and size of utensils and/or tools

NOTE: If you have students who have difficulty reading, you might begin the study of recipe components by using an illustrated recipe.

TS13:3 Have the class discuss how the information included in a recipe is used by the food service employee. KEY QUESTIONS: What is meant by yield? Why are directions for combining ingredients given? How could knowing which size of utensil or container to use save time? Which part (component) of a recipe tells you how to prepare the food?

TS13:4 Prepare Teaching Aid 80, How to Use a Recipe. Have students study the teaching aid and then role play a cook preparing the recipe. Have them follow all the steps for using the recipe correctly: (1) Read the recipe, (2) Look up definitions of terms you do not know, (3) Pretend to get out food, (4) Get out equipment, (5) Go through the motions of measuring ingredients and following directions. Observe carefully and suggest ways for students to improve.

Abbreviations

TS13:5 Develop flashcards with cooking measurement terms and abbreviations. Have the students describe the measurement procedure or the meaning of the abbreviated terms, as you show them the cards.

TS13:6 Have students look at three selected recipes and underline the abbreviations. Then have them write out the terms the underlined abbreviations represent. Review and correct their responses in class.

TS13:7 Have the class take part in an "Abbreviation Relay." Divide the class into two teams, and have teams line up in two rows in front of the blackboard. Two identical lists of abbreviations of measurement terms are written on the board. When "go" is called, the team members attempt to write out one abbreviation in full. When that team member finishes the word, he or she moves to the back of the line. Members must answer, even incorrectly, every time they go to the board. As the game progresses, team members may attempt a new abbreviation or correct what a teammate has done. When a team feels it has completed the list correctly, the members can call time. In scoring, a +1 is given for each correct answer, and -1 is deducted for each incorrect answer. In the second round, the measurement terms are written in a word list and the team members attempt to write the correct abbreviations for the measuring terms.

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* TS 13:1 indicates teaching strategy, chapter 13, number 1.

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TS13:8 Have students study a list of common measurements and abbreviations used in food preparation. Divide the class into two teams to play "Jeopardy." Place a small bell on a desk. The leaders call out the answers about the measurements and abbreviations. The first, second, etc., person in line must run up, ring the bell, and give the answer in the form of a question. Example: The leader says, "May be written as T., tb., or tbsp." The student would say, "What is the abbreviation for tablespoon?" Each student may confer with team members before ringing the bell, but the student must answer immediately after ringing the bell. The leader should repeat questions for reinforcement.

Substitutions

TS13:9 Display a chart of standard substitutions for ingredients. Explain its use to students. Divide the class into groups, and have the groups prepare a simple dish using a substitute ingredient.

TS13:10 Review assigned reading and discuss standard substitutions. Conduct a question and answer session on substitutions. The class could be divided into teams for competition, if desired. The team with the greatest number of correct answers wins the distinction of "Substitute Specialists."

Equivalents

TS13:11 Use Teaching Aid 81, Table of Measurements, to develop a flannel board demonstration of equivalent measurements. KEY QUESTIONS: Why is knowing equivalents important in commercial food preparation, or in increasing or decreasing recipes?

TS13:12 Make flashcards of measurements and their equivalents. Have students match up flashcards of measurements and their equivalents.

Can Sizes

TS13:13 Display empty cans ranging from 6 oz. to No. 10 in size. Have students fill each can with water and measure how many cups each can holds. For example, No. 2 sized cans (18-20 oz.) yield 2-1/2 cups. Have students determine the size of the can by the amount it holds, label it with masking tape, and mark on the label the can size and capacity. Check the students work for accuracy. Discuss any incorrect labeling, or have students repeat the measurement process and relabel.

Terminology

TS13:14 Divide the class into two teams to play "Cooking Charades." Place cooking terms on individual sheets of paper in a container. Have each team take turns acting out a cooking term which is drawn from the container. The team identifying the most terms is the winner.

TS13:15 Have students review food service terms by playing Chef Rummy (Teaching Aid 82, Chef Rummy) or Food Bingo. For Food Bingo, play bingo using cards with cooking terms instead of numbers. Have students match pictures shown by the teacher to the word on their card. Use beans or small pieces of paper to cover the word on your card so that the answers can be checked.

TS13:16 Have each student select, from a box, one cooking term to illustrate for the class. Using proper equipment, ask the student to explain the term. NOTE: Place only a *few* cooking terms in the box and display the utensils needed for each technique.

TS13:17 Play "Name That Term." Call out definitions of cooking terms and have students write down the terms defined. Students receive one point for each correct answer. NOTE: If students have difficulty spelling terms, alphabetized lists of the terms can be provided.

TS13:18 Have students refer to a recipe with underlined cooking terms. Call on students to explain their terms to the class and describe the equipment needed and/or the cooking surface to be used.

Adjusting Yield

TS13:19 Describe procedures for increasing or decreasing the yield of recipes. KEY QUESTIONS: Why can't recipe ingredients simply be multiplied or divided as needed? Why should ingredients be converted to the next smaller unit of measure? Is it necessary to increase or decrease every ingredient by the same proportion? Why?

TS13:20 Have students study recipes showing amounts of ingredients for several different yields. KEY QUESTION: Were all the ingredients multiplied by the same number to increase or decrease them to the next yield? NOTE: Checking these figures on actual recipes will allow the students to practice the math skills necessary for adjusting yield in any recipe.

TS13:21 Have students practice increasing and decreasing the yield of recipes. Example: Increase a recipe for 100 portions so it will yield 235 portions. Decrease the same recipe for a yield of 80 portions.

RECIPE USE

TS13:22 Have students prepare a demonstration on how the use of equivalents in measuring ingredients can save time and energy. Use a stop watch to time a student measuring four, one cup measures of water; then, time him or her measuring a one quart measure of water. Have the class note the water level as you pour the four cup measures of water and the one quart measure of water into the clear glass containers of the same size. KEY QUESTIONS: What does the same water level in each container indicate? How much time was used to measure the quart of water? How much time was used to measure the four cups of water? Which method of measuring would save time?

TS13:23 Have students describe ways to develop speed and accuracy in recipe use. Write guidelines on the board and discuss how each saves time.

TS13:24 Using guidelines from assigned reading, guide students to develop speed and accuracy in recipe use. NOTE: Guidelines could be reviewed as a charades game.

Cooking Methods

TS13:25 Explain or show an audiovisual on the five categories of cooking used in food preparation. Divide the class into five groups, and assist each group in preparing a demonstration of one of the methods. Have the group present their demonstration to the class.

TS13:26 Develop a bulletin board with headings consisting of the five cooking methods (dry heat, moist heat, fat, combination, and extraction). Have students locate recipes using these methods and post them under the appropriate category heading.

Seasonings

TS13:27 Have students view a flip chart with the names of popular spices, herbs, and extracts. Ask the students to say the name of the seasoning as you point it out on the chart and identify whether it is a spice, an herb, or an extract.

TS13:28 Have students visit a supermarket, or view a display, to locate the spices, herbs and extracts that are available. Students should be able to name at least four seasonings they have seen and describe how they are used.

TS13:29 Have students participate in a "Sense Lab" by doing the following: Look at different labeled spices, herbs, and extracts. Examine the containers for each one. Note the different sizes and shapes of the containers. Examine the color of each spice, herb, and extract, and the shape and size of each spice or herb. Smell each different spice, herb, and extract. KEY QUESTIONS: Does it have a smell at all? Can you identify it just by smell? Pour a small amount of each seasoning in a bowl and feel it. Is it hard or soft? Is it crunchy? Is it round or long? Is it powdery or made of liquid? For the last part of the "Sense Lab," taste all the spices, herbs, and extracts. Do they taste as you expected after seeing and smelling them? Do you like how they taste? Do they taste sour, sweet, or bitter? Compare your answers with those of other class members and your teacher.

TS13:30 Have students prepare a bulletin board on SEASONINGS. Ask them to write the words Spices, Herbs, and Extracts as headings. Then place samples of the different seasonings, in clear plastic sandwich bags, on the bulletin board under the right category. For review or evaluation, have students name as many of the spices, herbs, and extracts as they can. KEY QUESTION: What are the most common seasonings?

TS13:31 Play "Round Robin" to learn different kinds of spices, herbs, and extracts. Have all students form a circle in the classroom. Name a spice, herb, or extract. The person to the teacher's right must repeat the seasoning the teacher said and add another seasoning. The next person to the right then repeats all the seasonings named before and adds another. This is done around the entire circle. If a person cannot think of a spice, herb, or extract, help them out by telling them one. See how many seasonings can be listed.

TS13:32 Demonstrate the proper cooking techniques for using spices, herbs, and extracts in flavoring foods. KEY QUESTIONS: How did the teacher use the seasoning? Why is it important not to put too much seasoning in food? Why should all spices not be added at once? Why would you rub a bowl with a clove of garlic? Why should you add spices to stews or chili the last 30 minutes to one hour of cooking? Why do you not season all dishes? Why should whole pods or leaves be placed in cheese cloth or a metal perforated ball when using for seasoning food? Why should you crush herbs like thyme, bayleaf, oregano, and rosemary with your hand before adding them to food? Why should you follow directions in using spices, herbs, and extracts? Is it wise to measure spices or extracts over the container of food you plan to add them to? Why?

TS13:33 Have students tour the ingredient room and note the storage of spices, herbs, and extracts. Watch a demonstration on the care and storage of spices, herbs, and extracts. KEY QUESTIONS: Why should the aromatic oils in spices be protected from oxidation in the air? How should spices be stored once they are opened?

TS13:34 Have students prepare recipes which use spices, herbs, or extracts. After everyone in the class has prepared their recipe, taste all the different foods and decide if the dishes were seasoned correctly. KEY QUESTIONS: Which flavor is the strongest? Which seasoning is the most subtle?

Tasting

TS13:35 Demonstrate the correct procedure for tasting food. KEY QUESTIONS: Why were two spoons used? How was food transferred to the second spoon? Was the second spoon ever placed in the food? Why?

TS13:36 Have students make a bulletin board to illustrate the correct procedure for tasting food.

Convenience Foods

TS13:37 Have students list the convenience foods used at their training station and describe the various ways in which they are used.

TS13:38 Have students share the lists made in the previous assignment (TS13:37) with other food service employees. Ask them to compare the use of convenience foods in each of the health care or food service establishments in which they are employed.

TS13:39 Present an illustrated lecture on the meaning of convenience foods. Prepare a display of convenience foods. Explain why each item is considered a convenience food. Have students write a definition of convenience food in their own words and hand this in for evaluation. KEY QUESTION: What is the difference in convenience food and food prepared by a conventional method?

TS13:40 • Demonstrate the different procedures for preparing convenience foods. KEY QUESTIONS: What is meant by concentrated foods? freeze dried foods? dehydrated foods? frozen foods? mixes? Name one food which has been produced by each of the processes. What is the difference in prepackaged foods and preportioned foods?

TS13:41 Have students draw an assignment card and prepare the food item on the card. Keep a record of preparation time. NOTE: Have half of the students prepare convenience food items and the other half prepare the same food item using the traditional method. Assignments might include cakes, frostings, pie crust, and pie filling using dried or canned sliced apples. Discuss the difference in time used in preparation of the food items. KEY QUESTIONS: Which method saves the most time? Why is it important to follow the directions in preparing the food?

WORK SIMPLIFICATION

TS13:42 Have students listen to a panel of food-service workers describe ways to save time and energy in food production. Make a list of the panel's suggestions. KEY QUESTIONS: Why is efficient use of time and energy important to the employer? What may result if an employee cannot produce the minimum volume of work? Why is a time schedule used? What is a production schedule? How do food service workers make sure everything is ready at the correct time?

TS13:43 Have students look at pictures showing different ways to save time and energy. Examples are included on Teaching Aid 83, Saving Time and Energy. After viewing each example, lead students to discuss the following:

- How is the person saving or wasting energy?
- How could this picture help you when you work at home or in a business?
- How is the person standing?

TS13:44 Use the "string" method to measure the steps taken in food production. Have each student proceed through the steps of preparing a food product while carrying a ball of string. Wrap the string around something at every stop point (refrigerator door handle, pantry door knob, work area drawer knob, etc.) When finished, measure the string. KEY QUESTIONS: Which class member has the shortest string? What does having the shortest string mean? Could steps be saved by thinking of an "imaginary string" during food production? NOTE: This teaching strategy may be set up as a contest between students, or you may prefer to let students compete with themselves by trying to use less and less string to perform the same food production technique.

TS13:45 Use Teaching Aid 84, Normal and Maximum Work Areas. KEY QUESTIONS: Why should tools and supplies be placed within these areas? How would this save time and energy?

TS13:46 Have students develop posters showing ways to save time and energy. Suggest that they include ideas such as arranging work within the proper working area, prepositioning tools and supplies so they are ready to grasp in the appropriate order, minimizing body movements, using both hands whenever possible, disposing of finished work by dropping it to its destination, varying position to prevent fatigue, using proper illumination for work, and minimizing holding of work by either hand.

TS13:47 Lead students to brainstorm to list labor-saving equipment and the tasks each piece of equipment performs. KEY QUESTION: What accessories for equipment are available to perform additional tasks?

TS13:48 Have students work in small groups and choose one task that they perform daily at their training or work stations. Have the groups analyze the way each group member performs the selected task. Then, using work simplification principles, ask groups to suggest ways to save time and energy while performing the task.

FOOD PORTIONING

TS13:49 Explain what food portioning means. NOTE: Use a candy bar that is premarked or predivided into sections and a regular candy bar. Divide the regular candy bar first, then divide the premarked or predivided candy bar. Have students look at the two candy bars. KEY QUESTIONS: Which candy bar was easiest to divide? Which one was divided into more even parts? What is standard portioning? What is portion control?

TS13:50 Have students view Teaching Aid 85, Can You Decide Which is Portioned Correctly? The visual depicts a specific food portioned equally on one side and unequally on the other side. As a group, identify the equal portions. Explain why they are equal or unequal. NOTE: The pictures should be enlarged if used on poster board or could be used as a transparency, so all students can see them clearly.

TS13:51 Cut a purchased cake into enough different sized pieces to serve each student in the class. Pace a toothpick with a number (a sequential number for each student in the class) attached in each piece of cake. Have students draw a number that will match from a box or hat. Serve each student the portion of cake that matches the number drawn. While eating the cake, ask students to consider the portion size. Compare portion sizes. KEY QUESTION: What would happen if a restaurant served both large and small servings of cake for the same price? Would customers receiving the small serving be unhappy? Discuss the importance of correct portioning.

TS13:52 Set up a display of tools used in portioning various foods or use Teaching Aid 86, Portioning Tools. Explain the uses of each tool to the students. For a pop quiz evaluation, rearrange the order of the pictured tools on the teaching aid and have students fill in the blanks with the name of each item and one of its uses.

TS13:53 Prepare a chart on portioning tools by dividing a large sheet of butcher paper or poster board into two columns. In the first column, glue or tape pictures of foods that require portioning. In the second column, place pictures of the correct portioning tool opposite the food to be portioned. Students may be able to prepare this for display in the laboratory. The chart will provide a quick review source when students need to portion foods.

TS13:54 Have students list and explain food portioning techniques which are used at their training stations. Share the food portioning techniques used at their training station with class members. Discuss the advantage of each food portioning technique.

PLATING FOOD

TS13:55 Take students on a tour of the school cafeteria to observe methods for dividing food into individual servings and arranging it on plates. After returning to the classroom, discuss the way the food was arranged on the plate. KEY QUESTIONS: Why is food arranged in a certain order on the plate? Who decides which food goes in which position or dish? What is basis for the decision? Is color a factor? Is temperature a factor?

TS13:56 Demonstrate the importance of using the correct size of portioning equipment when serving food. Place four small bowls on the counter. Ask a student to use a 4-oz. ladle to fill the bowls. Provide 12-13 ounces of applesauce to be served. Point out the following: The correct size serving tool must be used to ensure that the planned number of servings are met. If portions are too large, the number of servings will be less than planned. And if the portions are too small, food will be leftover and possibly wasted. KEY QUESTIONS: How could the applesauce be divided into four servings? Would a different size serving dish be needed?

TS13:57 Lead a class discussion on the amount of mixed fruit needed to serve ten people. Have students count out the correct number of dishes needed for serving the group. Ask students to determine the correct size portioning tool and fill the dishes. KEY QUESTION: Why is it necessary to know the number of people to be served?

TS13:58 Have students serve a buffet meal to the FHA Chapter or another group at one of their meetings. Instruct students to portion food, giving each person an equal amount, and place the food on the dishes correctly.

GARNISHING

TS13:59 Display pictures of ungarnished food and garnished food. Discuss the eye appeal of each picture. Have students suggest garnishes that would be appropriate to increase the eye appeal of the ungarnished foods. KEY QUESTIONS: What is the main purpose of garnishes? Are there additional purposes? If so, what? What basic techniques should be followed in choosing the garnish and in decorating food with a garnish? Is it necessary to garnish all foods? If not, on which foods would garnishes be unnecessary?

TS13:60 View an audiovisual on types of garnishes. KEY QUESTIONS: How are the garnishes shaped? How large are the garnishes? Do you think the garnishes make a meal look good to eat? Why?

TS13:61 Demonstrate different ways to use a food for garnishing other foods. For example, an orange can be sliced into thin rings and twisted, sliced in half, sliced in fourths, and sliced and spread apart. NOTE: Emphasize cleanliness when decorating foods, refrigeration of some foods right up until time for decorating and immediate refrigeration afterwards, and the need for speed when garnishing foods.

TS13:62 Have students view Teaching Aid 87, Fruit and Vegetable Garnishes, and work in groups to prepare a demonstration for the class on how to prepare and arrange simple food garnishes. Limit the demonstrations to five to ten minutes each. NOTE: This teaching aid will be used again in Chapter 22, TS22:18.

TS13:63 Ask students to choose a card from the "Garnish Box." Each card should name a garnish such as twisted orange slices, radish roses, carrot curls, or sliced olives. Provide supplies and equipment, and have each student prepare the garnish named on the card they drew. Garnishes may be stored until the next lab in the refrigerator or in iced water.

14

Beverages

COMPETENCIES TO DEVELOP

- Prepare a variety of non-alcoholic beverages.

OBJECTIVES TO ACHIEVE

- Identify types and forms of beverages frequently prepared in food service.
- Describe menu uses of various beverages.
- Outline steps in preparing various beverages.
- Identify quality standards for specific beverages.
- Describe procedures for serving and garnishing various beverages.
- Describe procedures for holding and storing beverages.

ASSIGNMENT

- Read Chapter 14 in the *Food Production, Management, and Services Reference Book.*

BEVERAGES

TS14:1* Lead a class discussion on the beverage station and the basic guidelines for preparing quality beverages. KEY QUESTIONS: Where are beverage stations located? When are beverages served? What guidelines should be followed?

TS14:2 Lead students to brainstorm answers to the question, "What are beverages?" List on the board the examples mentioned. Take a vote of the entire class on what each student feels is the most popular beverage in the United States. Find a volunteer to check food service books to determine which is more popular.

TS14:3 Instruct students to view menus from several different types of food service establishments and notice the types of beverages offered. Have students develop a chart showing what types are served at different restaurants and compare prices.

NOTE: The following teaching strategies can be used for any beverage. These experiences may be repeated for each beverage. Allow the students to master one beverage before moving on to the next. Try to introduce a new beverage after each two or more labs.

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* TS 14:1 indicates teaching strategy, chapter 14, number 1.

ICED WATER

TS14:4 Lead a class discussion on the serving of water at a food service establishment. KEY QUESTIONS: When is iced water served? What is the correct method for putting ice in the glass? How should glasses be refilled? What types of garnish may be used in glasses of iced water? Why would iced water be garnished?

COFFEE

TS14:5 Lead a class discussion on and show examples of different types of coffee that are available. Include coffee beans, ground coffee, and instant coffee. Demonstrate coffee preparation in the coffee maker located in the lab. Review the eight directions for making good coffee from pages 167 and 168 of the Reference Book during the demonstration. KEY QUESTIONS: What type of water makes good coffee? Which grind of coffee should be used in the laboratory coffee maker? How long can coffee be held for good flavor? How often should coffee cups be refilled?

TS14:6 Have students listen to a taped survey of teachers asked to indicate the qualities (aroma, flavor, and temperature) expected in a good cup of coffee. Repeat these procedures for tea. NOTE: A teacher's opinions could be taped in the teacher's workroom or in the halls during passing periods.

TS14:7 Ask students to find the characteristics of good coffee in books or pamphlets. Make a combined list from the teacher survey and information found in books and pamphlets. Use this as a checklist for coffee made in the lab. Lists for tea and cocoa could be prepared using the above methods.

TEA

TS14:8 Demonstrate making tea using an urn. KEY QUESTIONS: How is the bulk tea used? What type container is preferred for making tea? Is the hot concentrate poured into cold water, or is cold water poured into the hot concentrate? Should tea be stored in the refrigerator before serving?

TS14:9 Lead a class discussion on the advantages of instant tea. Ask a student to demonstrate making instant tea. KEY QUESTIONS: Does the type of water used for instant tea influence the flavor and appearance of the tea? Which type of tea requires less ice?

DAIRY BEVERAGES

TS14:10 Lead a class discussion on fresh milk. Have students look at a display of different types of milk such as whole, skim, chocolate, and buttermilk. KEY QUESTIONS: How should milk be served? How should fresh milk be stored? Why and how is milk pasteurized? Is it safe to use milk that has not been pasteurized? Why and how is milk homogenized?

TS14:11 Demonstrate cocoa and hot chocolate preparation. KEY QUESTIONS: How hot should the milk be when added to the chocolate mixture? Why is it important to stir the mixture?

TS14:12 Demonstrate making a milk shake. KEY QUESTIONS: How much flavoring was used? How long did it take to mix the milk shake? Were lumps still in the milk shake after it was mixed?

FRUIT AND VEGETABLE BEVERAGES

TS14:13 Review instructions for making quantity cocoa, tea, coffee, and fruit drinks. List on the board any terms that are unfamiliar. Find definitions for the unfamiliar terms and write them on the board beside the terms.

TS14:14 Lead a class discussion on the difference between a nonalcoholic appetizer, cocktail, and punch. Discuss serving techniques for nonalcoholic appetizers. Have students prepare a punch for a special occasion and let students practice serving the punch.

CARBONATED BEVERAGES

TS14:15 Have students observe the use of the automatic beverage dispenser. KEY QUESTIONS: What sizes of cups are used? How much ice is used? How is foaming reduced?

TS14:16 Conduct an experiment in class by having students prepare sample sized servings of carbonated beverages over ice. Let the servings stand for 30-40 minutes. Have students taste the beverage samples. For comparison, provide a sample from a bottle or can that has been opened for one day and allowed to "get flat." KEY QUESTIONS: Did the ice melt and dilute the beverage? Did the carbonation dissipate? When should servings of carbonated beverages be prepared for maximum flavor? Discuss the holding time and proper storage techniques for other types of beverages including coffee, tea, milk, and juice.

TS14:17 Demonstrate convenience beverage products by preparing a beverage using the convenience product and the same beverage using the traditional method. Have students taste the products and compare flavor, color, aroma, and texture. Ask students to figure and compare the cost per serving of the traditional and convenience products.

TS14:18 Have students choose a partner, draw an assignment slip, and prepare the assigned beverage. NOTE: The assignments can include coffee, tea, cocoa, iced water, milk, milk shakes, fruit and vegetable drinks, and carbonated beverages. Students should be able to demonstrate knowledge of preparation, accepted standards, garnishing, and serving techniques.

TS14:19 Guide students to plan and implement one of the following activities:

- Invite teachers to a "coffee house." Serve coffee with chocolate ice cream, garnished with nutmeg or with whipped cream and chocolate slivers.
- Have a "tea time" for teachers. Serve tea with various garnishes and an assortment of cookies or tea sandwiches.
- Serve another class hot chocolate. Use a variety of garnishes, such as whipped cream, ice cream, or marshmallow products.

15

Cold Sandwiches

COMPETENCIES TO DEVELOP

- Prepare hot and cold sandwiches.

OBJECTIVES TO ACHIEVE

- Identify types of sandwiches.
- Identify ingredients used in making sandwiches.
- Describe methods for preparing sandwiches.
- Design ways to cut and arrange sandwiches.
- Describe ways to garnish and serve sandwiches.
- Outline procedures for holding and storing sandwiches.

ASSIGNMENT

- Read Chapter 15 in the *Food Production, Management, and Services Reference Book.*

TYPES OF SANDWICHES

TS15:1* Have students describe their favorite cold sandwiches. Write the names on the board. KEY QUESTIONS: Which sandwich is the favorite of most of the class? How often do students eat this particular type of sandwich?

TS15:2 Have students read through a collection of menus and list the types of cold sandwiches. Lead students to categorize the lists of cold sandwiches according to the following types: sliced, regular, open-faced, club, or speciality. KEY QUESTION: What are the characteristics of each type of sandwich?

TS15:3 Prepare examples of the four different types of sandwiches and have students identify each example as regular, open-faced, club, or specialty. Ask students to explain the reasons for their choices.

PARTS OF SANDWICHES

TS15:4 Have students play "Make a Sandwich" game. Students select a card with the name of a sandwich on it and list the ingredients that would be needed to make the sandwich they selected. The teacher checks the items chosen. KEY QUESTIONS: Were the right ingredients listed? Were there any ingredients listed that were not necessary?

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* TS 15:1 indicates teaching strategy, chapter 15, number 1.

TS15:5 Show the class pictures of different types of breads and discuss the characteristics needed to make a good sandwich. Show examples of stale bread, very fresh bread (hard to spread), bread of different sizes, and bread that crumbs or tears easily. KEY QUESTIONS: What is the most common sandwich bread? What other varieties of breads are used in sandwiches? How thick should slices be? Why is cold bread easier to spread? What happens if the top slice of bread is a different size than the bottom slice? Will the amount of filling vary with different sizes and types of bread slices?

TS15:6 Lead students to discuss sandwich spreads. Include butter, mayonnaise, peanut butter, and mustard. KEY QUESTIONS: What is the most popular spread? Why is a spread used? Is a spread ever used alone?

TS15:7 Demonstrate how to make sandwich fillings. KEY QUESTIONS: What are some basic sandwich fillings? What ingredient holds the sandwich filling together? What is the difference between dry and moist fillings? Why should some fillings be refrigerated? NOTE: Include pimento cheese, chicken salad, ham salad, tuna salad, and egg salad.

SANDWICH PREPARATION

TS15:8 Have students view slides or audiovisuals on sandwich preparation. Discuss the following: What are the characteristics of a high-quality sandwich? What measure prevents soggy sandwiches? What happens when sandwiches are improperly wrapped? What sanitation rules are related to sandwich preparation? How is an equal amount of filling measured for each sandwich? What tools are needed in sandwich preparation? Why should plastic gloves be worn during sandwich preparation? What guidelines should be followed when distributing the filling on the bread? Why is it important to keep the work area neat?

TS15:9 Lead a class discussion on the correct order of steps for sandwich making. Have students view Teaching Aid 88, Individual Work Set Up for Preparing Sandwiches. KEY QUESTIONS: Is there a special way to set up a work station for sandwich making? What is it? What is the order for placing ingredients on the bread? Why should care be taken to place the same amount of ingredients on each sandwich? What procedure can be used in cutting sandwiches that saves time and energy?

TS15:10 Have students practice spreading sandwiches using one of the following fillings: peanut butter and jelly, egg salad, or pimento cheese. Package and sell sandwiches to the class, teachers, or other students. Have each student spread at least three sandwiches. A student supervisor can check the sandwiches for amount of filling, proper spread of filling, and condition of bread (not torn or mashed). NOTE: Have students figure price on a cost recovery basis.

GARNISHING AND SERVING SANDWICHES

TS15:11 Have students watch a demonstration by a caterer on special assembling, cutting, and garnishing techniques for sandwiches. Examples might include checkerboard, ribbon, open, pinwheel, and two-tone sandwiches; special cuts; and garnishes. KEY QUESTIONS: What garnishes were used? What is the purpose of garnishing sandwiches? What other foods might be served with sandwiches? When should toothpicks be used?

TS15:12 Lead students to plan and set up a short-order sandwich restaurant for teachers. NOTE: Students should take orders several days in advance to determine the amount of supplies needed. When teachers arrive, have the waiters and waitresses retake the orders and relay to the cooks to simulate actual rush hour conditions. Instruct students to garnish and serve the sandwiches in attractive ways. NOTE: Have students figure prices on a cost recovery basis.

HOLDING AND STORING COLD SANDWICHES

TS15:13 Lead a class discussion on the correct procedures for holding and storing cold sandwiches. Have students prepare sandwiches to be sold at the snack bar or by school vending machines during lunch hour, if possible. Fill the machine just prior to the lunch hour and empty immediately after. NOTE: If the machine is refrigerated, a longer holding period is safe provided correct preparation techniques are used.

TS15:14 Demonstrate wrapping and storing sandwiches correctly. Point out ways to simplify and speed the preparation for storage. Have students practice wrapping and storing the leftover sandwiches from each of the labs.

16 Salads

COMPETENCIES TO DEVELOP

- Prepare salads and salad dressings.

OBJECTIVES TO ACHIEVE

- Identify types of salads.
- Describe menu uses of salads.
- Describe the basic parts of a salad.
- Name the basic types of salad dressings.
- Describe the steps in preparing salad dressings.
- Identify various salad ingredients.
- Describe the steps in preparing and storing salad ingredients.
- Describe procedures for preparing tossed, molded, and arranged salads.
- Demonstrate procedures for serving and garnishing salads.
- Summarize procedures for holding and storing salads and salad dressings.

ASSIGNMENT

- Read Chapter 16 in the *Food Production, Management, and Services Reference Book.*

TYPES OF SALADS

TS16:1* Assemble pictures of different types of salads. Prepare cards naming the types of salads: combination, arranged, and molded. Place the cards on a counter or desk. Have students select a picture and place it in front of the correct card according to the type salad pictures. NOTE: This could be done as a contest between groups, as a pretest on salads, or as an individual learning activity. Correct answers could either be written on the back of each picture or the pictures could be numbered and a list of answers prepared.

TS16:2 Demonstrate preparing each of the three basic salad types. Lead a class discussion on the principles of preparation for each salad type with regard to quality of ingredients, eye appeal, color contrast, simplicity, neatness, and preparation techniques such as chopping, dicing, and slicing. Following the demonstration, have students list each salad type and suitable ingredients for each. Let students sample the salads. KEY QUESTIONS: Which type of salad is most frequently served? Which salad requires the most preparation time? Which is the most attractive?

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* TS 16:1 indicates teaching strategy, chapter 16, number 1.

MENU USES

TS16:3 Have students look at menus from a variety of restaurants, find all the salads, and determine what menu categories they are in. Examples of menu categories include appetizer, entree, accompaniment, and dessert. KEY QUESTION: What are examples of salads in each category?

TS16:4 Lead a class discussion on salad bars. KEY QUESTIONS: Why are salad bars popular? profitable? What types of ingredients and dressings are usually available in a salad bar? What special sanitation and upkeep problems are involved with a salad bar?

PARTS OF A SALAD

TS16:5 Lead a class discussion on the three basic parts of salads: the base, the body, and the dressing. KEY QUESTIONS: What purpose does the base serve? Should the base of the salad be eaten? What kinds of ingredients can be used in the body of the salad? What is the difference in a temporary emulsion and a permanent emulsion type of salad dressing?

TS16:6 Have students compare a temporary emulsion salad dressing and a cooked dressing. Explain the basic differences in appearance as the dressings are examined. Let students sample each type. Store the dressings for later use in a salad lab.

Salad Dressings

TS16:7 Have students examine and sample different types of salad dressings in a labeled display. Lead a class discussion on the types of dressings: mayonnaise, cooked, or French or oil based. Have students give examples of salads on which each type dressing may be used. NOTE: Label the dressings with large lettering so students with visual impairments can see the names.

TS16:8 Have students identify salad dressing types by viewing a display of numbered dishes containing various salad dressings. Ask students to record each number on a paper and then list the type of dressing beside the number.

TS16:9 View an audiovisual or demonstrate the preparation of the three basic types of salad dressings. Have students note the importance of adding certain ingredients slowly.

TS16:10 Divide the class into four groups. Have each group explain one of the basic recipes pre-written on a flip chart for mayonnaise, mayonnaise with cooked base, French, and cooked salad dressings.

PREPARING AND STORING SALAD INGREDIENTS

TS16:11 Provide a display of different salad ingredients (or pictures) including several types of greens, fruits, and vegetables in a market basket display. Ask each student to select one item from the basket to identify by name and indicate the preparation it would require before using it in a salad. Take turns until all items in the basket have been discussed.

TS16:12 Conduct a game to practice identifying salad ingredients by name. Divide the class into two teams. Each team will attempt to identify the salad ingredients and how they are used in salads. Each team will be given one point for each correct answer. One point will be subtracted for answering out of turn.

TS16:13 Have students play "Salad Scramble" to review terms used in salad preparation. See Teaching Aid 89, Salad Scramble, for directions.

TS16:14 Lead a class discussion on the preparation of fruits and vegetables which turn dark after peeling or cutting. KEY QUESTIONS: What causes bananas, apples, pears, potatoes, and avocados to darken? What are ways to prevent this darkening and keep the ingredients looking fresh and appetizing?

TS16:15 Lead a class discussion on the forms of meats and seafoods used in salads. KEY QUESTIONS: Where do these meats come from? How are freeze dried products made? In what ways are meat and seafood products cut for serving in salads?

TS16:16 Demonstrate the proper ways to clean, wash, and store vegetables. Point out the condition of greens that have been prepared and crisped prior to demonstration. KEY QUESTIONS: How is ripeness of fruits and vegetables judged? How can vegetables be kept crisp? How should salads be stored to keep them fresh?

TS16:17 Have students practice cleaning and storing vegetables to be used later in making salads. KEY QUESTIONS: How can a person clean quantities of vegetables at one time? How can this be a time saver?

TS16:18 View an audiovisual on salad ingredients, dressings, and salad serving tips. Discuss the techniques shown in the audiovisual. Have students list ideas that can be incorporated into their work station or at their training station.

CONVENIENCE SALADS

TS16:19 Lead a class discussion on the convenience salad products available on the market today. KEY QUESTIONS: How do these salad products save time? What type of convenience dressings are available? How does the use of convenience salad products affect quality and cost?

TS16:20 Provide students with the unit cost for all the ingredients in potato salad. Have the students compute the cost per serving for a recipe yielding 25 servings. Then have the students figure the cost per serving for canned potato salad? KEY QUESTIONS: Which potato salad costs the least per serving? If the salad is prepared in the traditional manner, is the cost of the ingredients the only cost involved? What other costs would need to be considered?

SALAD PRODUCTION

TS16:21 Divide the class into groups. Assign each group one salad (appetizer, entree, accompaniment, or dessert) to prepare for a salad luncheon. NOTE: Teachers, students, or parents could be served at a cost recovery price.

TS16:22 Have students select a fruit or vegetable salad which is unfamiliar to them and which appears on a restaurant menu. Have them find a recipe for that salad and prepare the salad to be served at a tasting party.

TS16:23 Demonstrate the preparation of a gelatin salad to be set in a mold. Explain the necessity of soaking plain gelatin in cold water and dissolving flavored gelatin in boiling water; length of time for congealing; proper time to add vegetables and fruits; and methods for unmolding.

TS16:24 Conduct a salad lab. Have each group prepare different types of salad, garnish the salads, and serve them to customers. Appoint a student supervisor or ask another teacher to evaluate the salads for appearance, texture, color, temperature, taste, appropriateness of garnish, and serving techniques.

SERVING AND GARNISHING SALADS

TS16:25 Demonstrate salad garnishing techniques to the class. Have students develop, through lab practice, some techniques for garnishing salads. KEY QUESTIONS: Should the garnish be edible? What are some popular salad toppings?

TS16:26 Explain the various ways restaurants serve salads and dressings.

Salads may be served
- in individual bowls at the table,
- from a large bowl, or
- by guests from a salad bar.

Dressings may be served
- in a small cup to the side of the salad,
- poured on the salad, or
- placed in serving trays and set on a table so each individual can choose and pour his or her own dressing.

HOLDING AND STORING SALADS

TS16:27 Demonstrate the correct method for storing and holding salads. KEY QUESTIONS: Why should salad greens be drained? How should dressings be stored? Why are salads stored in tightly covered containers in the refrigerator? What precautions should be taken with foods containing mayonnaise or protein ingredients?

17

Appetizers

COMPETENCIES TO DEVELOP

- Prepare appetizers and garnishes.

OBJECTIVES TO ACHIEVE

- Describe basic types of appetizers.
- Demonstrate procedures for preparing appetizers.
- Describe procedures for serving appetizers.
- Describe procedures for holding and storing appetizers.

ASSIGNMENT

- Read Chapter 17 in the *Food Production, Management, and Services Reference Book.*

TYPE OF APPETIZERS

TS17:1* Lead a class discussion on a definition of the term "appetizer," then write the definition on the chalkboard. List the seven categories of appetizers below the definition. Lead students to brainstorm several examples of appetizers that fit into each category. If examples cannot be named, have students look in recipe books or magazines for ideas.

TS17:2 Provide pictures of a variety of appetizers. Have students group and label each appetizer according to type: hors d'oeuvres, canapes, spreads and dips, cocktails, relishes, salads, or soups. Lead students to discuss the purposes of various appetizers and to describe when and how they are served.

TS17:3 Give each student a slip of paper with one food written on it. Examples include orange, mushroom, egg, cheese, and fish. Have each student describe an appetizer made with that food and name the category to which it belongs.

APPETIZER PREPARATION

TS17:4 Have students observe a demonstration on proper techniques for preparing appetizers. KEY QUESTIONS: What foods can be used for hors d'oeuvres? What are the basic parts of canapes? What foods are served with spreads and dips? What are the different types of cocktails?

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* TS 17:1 indicates teaching strategy, chapter 17, number 1.

TS17:5 Conduct an "Appetizer Party." Have students prepare and taste simple appetizers. KEY QUESTIONS: What ingredients were used to make each appetizer? How were the appetizers made? How should each appetizer be served? Is the appetizer served hot or cold? Is a garnish served with it?

TS17:6 Have students participate in an appetizer tasting party. Ask each student to identify the type of appetizer as it is being prepared, then taste the appetizer when finished. Note the methods for making spreads, garnishes, and arranging the plates attractively. Verbally review methods for preparing appetizers.

SERVING APPETIZERS

TS17:7 Have students prepare appetizers for a departmental open house. Divide the class into pairs. Instruct each pair to prepare an appetizer. Two students should be assigned to refill trays and beverage containers each hour of the day as teachers attend the open house. If the open house lasts for several hours, choose hors d'oeuvres and canapes that refrigerate well without becoming limp or soggy. KEY QUESTIONS: How can appetizers be made more attractive? What types of serving dishes are used with appetizers? What variety of appetizers could be served? How can appetizers be kept from becoming limp or soggy?

HOLDING AND STORING APPETIZERS

TS17:8 Have students take orders from teachers and office personnel to provide appetizers for club or organization meetings. For example, arrange to prepare and serve appetizers for a PTA meeting at which slides and information are given on the Home Economics program. KEY QUESTIONS: What special holding and storing techniques will be needed? Will serving temperature be a factor in deciding what to serve? Which appetizers can be prepared in advance? How can the quantity be determined? What serving equipment will be required? Following the event, evaluate the decisions that were made and the success of the project. NOTE: This activity could be conducted on a cost recovery basis to provide the student with authentic practice at no cost to the department. Have students calculate costs and determine the amount to charge participants.

18

Soups and Sauces

COMPETENCIES TO DEVELOP

- Prepare soups, sauces, and gravies.

OBJECTIVES TO ACHIEVE

- Describe procedures for preparing and using different stocks.
- Identify the types of soups and their characteristics.
- Describe menu uses of soups.
- Describe procedures for preparing soups.
- Describe procedures for garnishing and serving soups.
- Identify basic sauces and their uses.
- Demonstrate procedures for preparing basic sauces.
- Describe procedures for holding and storing soups and sauces.

ASSIGNMENT

- Read Chapter 18 in the *Food Production, Management, and Services Reference Book.*

STOCKS

TS18:1* Have students observe a demonstration on methods for preparing different types of stock for soups. Stress the following information: the amount of cooking time necessary, whether salt is added, why the stocks must be cooled quickly, clarifying methods, and when to remove the fat that rises to the top. NOTE: One type of stock may be made from "scratch" and the other types from convenience products.

TS18:2 Have blindfolded students taste a white stock, a brown stock, a poultry stock, and a fish stock. Have each student identify which type of stock is tasted and tell what ingredients were used to produce each variety. Have the class discuss the uses for each type of stock. KEY QUESTION: Why are three types of stock necessary?

TS18:3 Distribute a card to each student with one of the following soup categories printed in large letters: Thin Soups, Thick Soups, Special Soups, and Cold Soups. Students should hold up their card if the soup name or description read by the teacher falls in that category. NOTE: A list of soup names and descriptions may be read by the teacher, pictures may be shown of different types of soups, or students may brainstorm the different types of soups.

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* TS 18:1 indicates teaching strategy, chapter 18, number 1.

TS18:4 Prepare at least one soup from each category for students to view and sample. (Convenience soups may be used for some or all these samples.) KEY QUESTIONS: How are thin soups most often used? What types of soups are classified as thick? What are some specialty soups? When are cold soups popular? Visit a food supplier, or obtain a list of convenience soups available. In what forms can convenience soups be purchased? What varieties are available? How are new flavors created?

USES OF SOUPS

TS18:5 Explain the different menu uses of soups. Have students list examples of soups that would be appropriate for service in each menu course.

TS18:6 Ask students to view menus from food service establishments and note where soups appear. KEY QUESTIONS: Are the soups used as appetizers, accompaniments, and/or as the main course? What types of soups are used for each course? Are the soups on the menu different from those named by the students? Are the menu uses different?

PREPARING SOUPS

TS18:7 Describe the steps in making soups. KEY QUESTIONS: Are steps in preparing convenience soups similar to steps in preparing homemade soup? How much water is added to convenience soups? When should seasoning be added to convenience soups and soups made from a recipe? At what temperature should soups be cooked? How should vegetables for soups be prepared? Is cream or milk ever used in making soups? What does cooking soup mean?

TS18:8 Have students prepare a flip chart of the steps in preparing soups. Explain each step in preparing the basic types of soup and describe the equipment needed.

TS18:9 Divide the class into four groups. Have each group prepare one of the following soups: frozen, dehydrated, canned, and recipe. Each group should prepare the same flavor of soup. Compare the soups for taste, appearance, aroma, and price per serving. KEY QUESTIONS: Which soup tasted best? Which soup looked the best? Which soup had the best aroma? Which soup cost the most (least) per serving? Which soup was the easiest (hardest) to prepare? Which soup took the most (least) time to prepare?

GARNISHING AND SERVING SOUPS

TS18:10 Lead a class discussion on garnishes that are appropriate for different types of soups. Have students consider color, contrast, taste, texture, and temperature of the soup when planning appropriate garnishes.

TS18:11 Lead a class discussion on accompaniments appropriate for different types of soups. Have each student sample each of the following: bouillon with bread sticks, cream of tomato soup with grilled cheese finger sandwiches, and meat and vegetable soup with miniature cornmeal muffins. KEY QUESTIONS: Would a cream soup such as the tomato soup served alone actually satisfy a person's appetite? Why could the meat and vegetable soup be considered a main dish?

BASIC SAUCES AND THEIR USES

TS18:12 Lead students to brainstorm names of various types of sauces. Ask students to use cookbooks to locate additional sauce names, if necessary. Write the list of sauces on the chalkboard as they are named. Have students divide the list of sauces into the basic sauce categories of brown, tomato, white, cream, egg, or butter sauce.

TS18:13 Lead a class discussion on types of foods with which each category of sauce is served. For example, have students give examples of foods that may be served with a cheese (cream) sauce. This could be conducted like a spelling bee with two teams alternating answers after a sauce category is designated.

TS18:14 Write the following phrases on the board: Spicy Sauces for Meats, Sweet Sauces for Desserts, and Cream Sauces for Vegetables. Have one student read the list of sauces named by the class and the other students take turns writing the names under the correct heading. KEY QUESTIONS: Did all the students agree with the choices made? If not, why?

TS18:15 Have students form small cooperative learning groups to investigate and compare the soups and sauces served in various health care and food service establishments. KEY QUESTIONS: Are these products made from a recipe or convenience products? Are only a few served, or is a wide variety offered to the patient or customer?

PREPARING BASIC SAUCES

TS18:16 Demonstrate and discuss the preparation of basic sauces. KEY QUESTIONS: Is the flour mixture always cooked before adding liquid? Should the liquid be cold or hot when added to the flour mixture? When should the gravy or sauce be seasoned? At what temperature should a sauce and gravy be prepared? How much seasoning should be used? What ingredients are used in gravy? Should part of the meat juices be poured out of the pan before preparing gravy, or should the juices cook down?

TS18:17 Ask each student to choose one of the following types of sauces and state the steps in its preparation: hot sauces, cold sauces, gravies, and sweet sauces.

TS18:18 Prepare handouts that list the ingredients for various sauces and gravies such as giblet gravy, roast gravy, cheese sauce, and marinara sauce. Have each student choose a list of ingredients, tell what product would be made from this list, and describe how to prepare this type of sauce or gravy.

TS18:19 Have student groups plan and prepare a fondue meal using various types of sauces served with bread cubes, fruits, and meat cubes or slices. Have students evaluate each type of sauce according to flavor, texture, appearance, temperature at serving time, and appropriateness of the food served with it. Compile the results and give a small award to the group that prepared the best sauce.

TS18:20 Have students practice making a white sauce. Instruct them to add ingredients to the basic sauce to produce varied sauces such as cheese, egg, and mushroom. Evaluate the sauces for a grade.

TS18:21 Have students prepare gravy to serve with a fried chicken or chicken fried steak dinner. Lead students to compare and discuss the products. KEY QUESTIONS: Was the gravy a satisfactory thickness? What can be adjusted to correct thick or thin gravy? What can be done if lumps occur?

HOLDING AND STORING SOUPS AND SAUCES

TS18:22 On a flip chart or chalkboard, have students list the correct methods for storing and holding stocks, soups, and sauces. Be sure the following points are included in a review: stocks should be refrigerated and stored quickly, stocks should be protected from contamination to avoid spoilage, soups should be kept at temperatures above 140°F. or below 40°F., soups should be cooled rapidly and refrigerated as soon as room temperature is reached, egg sauces are perishable, and custard sauces will spoil if not refrigerated quickly.

TS18:23 Have students plan a soup, salad, and dessert luncheon menu which could be served to faculty members or another group. Ask each student to write specific storage and holding plans for each menu item. Discuss these plans and make any necessary corrections.

19

Meat, Poultry, and Fish

COMPETENCIES TO DEVELOP

- Prepare meats, seafoods, and poultry.

OBJECTIVES TO ACHIEVE

- Define the term entree.
- Identify the types and cuts of meat, poultry, and fish available.
- Identify the forms of meat, poultry, and fish available.
- Describe factors to consider when selecting meat, poultry, and fish.
- Describe procedures for handling and storing meat, poultry, and fish.
- Identify menu uses for meat, poultry, and fish.
- Summarize principles of cookery for meat, poultry, and fish.
- Outline methods for cooking meat, poultry, and fish.
- Name convenience meat, poultry, and fish products available.

ASSIGNMENT

- Read Chapter 19 in the *Food Production, Management, and Services Reference Book.*

ENTREES

TS19:1* Ask students to define the term entree. After discussing the meaning, have each student describe his or her favorite entree. KEY QUESTIONS: Can foods other than meat, poultry, or fish be used for entrees? What are other foods that may serve as entrees?

TS19:2 Provide menus for students to study. Have students list all the types of entrees served. Classify each entree on the list under one of the following categories: Meat, Poultry, or Fish. Ask the students to vote on which category of entree they would order from the menu.

TS19:3 Display pictures of various entrees. Ask students to identify the sources of the entrees pictured. Have students work in groups to place the pictures under the following categories: Meat (Beef, Pork, Lamb), Poultry, and Seafood.

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* TS 19:1 indicates teaching strategy, chapter 19, number 1.

IDENTIFY TYPES AND CUTS OF MEAT

TS19:4 Identify types and cuts of meat. Show students pictures of meat cuts. Use meat charts, line drawings, or production pictures. Ask students to identify and locate on a chart their favorite cuts of meat.

TS19:5 Have students view an audiovisual on the varieties of meats available. KEY QUESTION: Did you recognize any particular cuts of meats? Name them.

TS19:6 Visit the cafeteria or restaurant to see meats used in food production. KEY QUESTIONS: What is the most expensive item the cook prepares? Why is it important to cook it well? What different colors are different types of meat? What are variety meats? Which variety meats have you eaten? What is meat?

TS19:7 Use Teaching Aids 90, Beef and Veal Chart, and 91, Pork and Lamb Chart, and have students identify the large cuts of meat such as the side, forequarter, and hindquarter. KEY QUESTIONS: What is the difference between wholesale and retail cuts? Which cuts are tender? less tender? Where are variety meats located? What terms are used for lamb quarters?

FORMS OF MEAT

TS19:8 Set up a display of the different forms in which meat may be purchased. Lead a class discussion on fresh, cured, frozen, and canned meat. If possible, have students tour a supermarket and identify forms in which meats may be purchased.

TS19:9 Write definitions of the four forms of meat on posterboard, and display the definitions on the bulletin board. Have students match the definitions to the cured, frozen, fresh, and canned meats displayed.

SELECTION OF MEAT

TS19:10 Have students select and study one of the following quality standards of meat: USDA inspection and grading, tenderness, or appearance of meat. Ask the students to write a short paper describing the factors that designate quality. Students may turn this paper in for evaluation or present an oral report to the class.

TS19:11 Have students view different cuts of meat and judge the quality of each. Students must justify their decision with statements about quality. Inspection and grading, tenderness, and appearance should be included.

TS19:12 Use Teaching Aid 92, Bone Shapes. Lead a class discussion on how the bone shape can indicate tenderness. KEY QUESTIONS: Where is a round bone taken from? What cut is from the leg? Which bone shapes indicate the more tender cuts?

HANDLING AND STORING MEAT

TS19:13 Demonstrate how to handle and store uncooked meats. KEY QUESTIONS: Should the plastic be left on meats that come wrapped in plastic? What will air do to meat?

How should meats be stored if they are kept more than a few days? How long can meats be kept in the freezer? How should frozen meats be thawed? Should meat be thawed before cooking?

TS19:14 Lead a class discussion on tasks assigned to food service workers which require handling and storing uncooked meats. KEY QUESTIONS: How should meats be prepared for storage in the refrigerator? How should meats be prepared for the freezer? How should meats be thawed? How is storage of canned meats different? What can be done with leftover meat?

MENU USES OF MEAT

TS19:15 Have students list on the board as many menu uses of meat as possible. Lead a class discussion on combining meat with pastas, rice, or vegetables. KEY QUESTION: What are some popular breakfast meats?

PRINCIPLES OF COOKERY FOR MEAT

TS19:16 Lead a class discussion on various ways to tenderize meats. KEY QUESTIONS: What are the three methods used to tenderize meats? What is papain? What type of foods are used in a marinade? How does scoring or pounding tenderize meat?

TS19:17 Write the following principle of meat cookery on the board: "Meat should be cooked at a low temperature until just done." Lead students to discuss what happens to meat during cooking and what happens when meat is overcooked.

TS19:18 Have students look at a display of meat cooked to different degrees of doneness. Point out the differences between each sample. Discuss indicators of doneness such as red for rare, pink for medium, and white for well. KEY QUESTIONS: What are the terms used to describe degree of doneness? What temperatures are important to remember? Why is it important to cook pork well done?

TS19:19 Describe methods for determining the doneness of meat and when each method should be used. NOTE: Demonstrate how to take internal temperature, how to use a time/weight/temperature cooking chart (emphasizing using it as a guide only and checking for doneness during cooking), and how to test doneness by feel.

TS19:20 Have students practice determining the doneness of meat by using a meat thermometer, time/weight/temperature charts, or testing doneness by feel. Evaluate performance and accuracy.

METHODS OF COOKING MEATS

TS19:21 Demonstrate cooking meat by different methods: the moist heat methods of braising, and simmering or boiling; and the dry heat methods of broiling, pan-frying, sauteing, and roasting. Have students taste meat prepared by each method.

TS19:22 View an audiovisual on roasting, broiling, and pan broiling. KEY QUESTIONS: Is a lid placed on a roasting pan during the cooking process? Why is the meat placed on a rack in the roasting pan? In broiling, is the direct flame under or over the meat? How often is meat turned during broiling? How is the doneness of roasted and broiled meats determined? How is the loss of natural meat juices prevented? Why is it necessary to pour off accumulated fat when pan broiling?

TS19:23 Have students study Teaching Aid 93, Meat Cookery. Lead a class discussion on information depicted.

TS19:24 Have students play a rummy game to practice matching cards naming or picturing methods for cooking meat with the dry heat and the moist heat methods. Each time a correct match is made, the player must explain how to prepare meat by the method displayed on the card. KEY QUESTIONS: Where is the meat cooked? What kind of container, if any, is required? Is liquid added? Is the meat cooked covered or uncovered? How can doneness be determined? Should the meat be turned while it is cooking?

TS19:25 Ask students to visit a meat market where the butcher will explain the dry and moist heat methods of cooking meat and will show examples of cuts of meat which are cooked by these basic methods.

TS19:26 Prepare an exhibit of pots and pans used for the dry- and moist-heat methods of meat cookery. Have students work in groups to list techniques such as baking, frying, pan-broiling, braising, broiling, and stewing under the categories dry heat or moist heat. Beside each technique, instruct students to list the types of meat cooked by each method.

TS19:27 Demonstrate how to cook meat by one method, and have students attempt each step as directed. Repeat this experience using other methods until the students have tried all the common methods for cooking meat.

TYPES OF POULTRY

TS19:28 List the names of different types of poultry on the board. Read the description of the fowl and have students point out which fowl is being described.

TS19:29 Ask students to tell what they know about poultry. KEY QUESTIONS: What kinds of fowl can be eaten? Which of these are raised for food? How are fowl cooked? How many ways are fowl sold in the supermarket?

TS19:30 Set up a display of different types of poultry including chicken, turkey, Cornish hen, duck, and goose. Ask students to name the different types. Have them point out the common features and the distinguishing features of the poultry in the exhibit.

TS19:31 Lead a class discussion on the types and classifications of poultry. Ask students to compare the poultry for size and amount of visible fat. KEY QUESTIONS: What two factors determine the tenderness and flavor of poultry? How much does the average fryer chicken weigh? Which type of turkey is the heaviest in weight but contains the least proportion of fat per pound?

FORMS OF POULTRY

TS19:32 Have students tour a market to view forms in which poultry may be purchased. KEY QUESTIONS: Is poultry purchased whole or in parts? What does it mean to buy poultry dressed? How are whole birds usually sold? What canned poultry items are available?

TS19:33 Show the class pictures or pieces of poultry purchased in different forms. Have students identify each and tell what it can be used for.

SELECTION OF POULTRY

TS19:34 Have students find and study examples of the symbols used by the USDA in inspecting and grading poultry. Lead a class discussion on the differences in grade A, B, and C poultry. KEY QUESTIONS: Which letter indicates the highest quality? Which grade would be assigned to a bird with a broken wing or torn skin? Where would the inspection grade be found?

HANDLING AND STORAGE OF POULTRY

TS19:35 Demonstrate handling and storing poultry. Then review the key points brought out in the demonstration. KEY QUESTIONS: What is the maximum amount of time poultry can be safely stored in the refrigerator? How long may frozen poultry be stored? Is poultry usually thawed before cooking? Where should canned poultry be stored? How should cooked, leftover poultry be stored?

TS19:36 Ask students to work in pairs in a role play explaining how to handle and store various types of poultry to a new employee. One student can role play the new employee and the other can play the experienced employee. Have other students critique the role plays and contribute additional facts as necessary.

MENU USES FOR POULTRY

TS19:37 Lead a class discussion on the various menu uses for poultry. Include ways to use poultry as appetizers, soups, entrees, and salads. NOTE: Students might use the index of several recipe books as a resource for other suggestions.

PRINCIPLES OF COOKERY FOR POULTRY

TS19:38 Have students list on the board the principles of cookery for poultry. KEY QUESTIONS: Which types of poultry should be cooked with dry heat methods? Which types should be cooked with moist heat methods?

METHODS OF COOKERY FOR POULTRY

TS19:39 Have students name methods for cooking poultry. Use Teaching Aid 94, Poultry Cookery, and lead a class discussion on other ways to cook poultry. Review the most common methods of pan-frying, deep-frying, broiling, roasting, and stewing.

TS19:40 Demonstrate the different methods of cooking poultry. Have students practice cooking poultry using the correct procedures.

TS19:41 Have students play "Poultry Facts." Instruct them to sit in a circle to cite facts learned about poultry. Each person in turn should give a different fact about poultry. Move clockwise around the circle. If a member repeats a fact or cannot give a new one, he or she must leave the circle.

CONVENIENCE POULTRY PRODUCTS

TS19:42 Have students write a familiar form of convenience poultry. Compile a list of responses on the board. Refer to page 226 of the Reference Book for more ideas.

TS19:43 Conduct a lab comparing convenience chicken to chicken prepared in the lab. (For example: coat pieces of chicken by dipping in cold milk, add paprika to the flour and roll chicken in flour, then fry in deep fryer.) Fry pieces of prebreaded chicken and compare amount of time required for preparation, cost per serving, and taste.

TYPES OF FISH

TS19:44 Have students list as many kinds of edible fish as possible. Ask them to classify the list into finfish and shellfish.

TS19:45 Create a bulletin board to help students distinguish between types of fish. List or show pictures of various types of fish under the categories of Finfish (saltwater and freshwater) and Shellfish (crustaceans and mollusks). Titles could be written on construction paper cut out in the shape of fish.

TS19:46 Have students examine menus from various food service establishments to determine the different types of fish available. Compare the number of fish items on the menu to the number of poultry and meat items. KEY QUESTIONS: How would the geographic location of the restaurant influence the menu? How does current public interest in good health and nutrition influence menu selections in restaurants?

FORMS OF FISH

TS19:47 Lead a class discussion on the various forms of fish available for use in food preparation including fresh, frozen, smoked, cured, dehydrated, and canned. Obtain a price list on fresh and frozen fish from a wholesale supplier. Have students compare prices of the different forms of fish (including canned).

TS19:48 Use Teaching Aids 95, Characteristics of Fresh Fish, and 96, Types and Cuts of Finfish. Lead a class discussion on the advantages and disadvantages of the different forms in which fish can be purchased.

TS19:49 Lead a class discussion on the ways shellfish can be purchased. KEY QUESTIONS: What are the considerations when deciding whether to buy shrimp peeled or in the shell? How are lobsters and crabs usually purchased? How are oysters and clams purchased? What types of canned shellfish are popular?

SELECTION OF FISH

TS19:50 Use and discuss Teaching Aid 95, Characteristics of Fresh Fish. KEY QUESTIONS: Is inspection mandatory? What grades are used? What characteristics should shellfish have? How should frozen fish be packaged?

MENU USES OF FISH

TS19:51 Have students develop a bulletin board with pictures of fish used in soups, appetizers, entrees, and salads. KEY QUESTIONS: Can each of the menu uses of fish be made with either finfish or shellfish? What type of fish soup is cooked and served with the fish in the shell?

TS19:52 Instruct students to develop a menu for a restaurant that specializes in fish dishes. Have students list the various fish and seafood dishes that could be sold. NOTE: To simplify this activity, allow students to look at a menu first.

HANDLING AND STORAGE OF FISH

TS19:53 Explain how to handle and store fish. KEY QUESTIONS: How should fresh fish be prepared for storage? How should frozen fish be prepared for storage? How long can fresh fish be stored in the refrigerator? Should fish be thawed before cooking? Why? How is canned fish stored once the can is opened?

TS19:54 Demonstrate the following rule: seafood should not be thawed at room temperature. Show a sample of fish allowed to thaw in the refrigerator and a sample thawed at room temperature. Note the difference in seepage of fluid. KEY QUESTIONS: What happens to the flavor and texture of fish when most of the fluid is removed?

PRINCIPLES OF FISH COOKERY

TS19:55 Review and discuss principles of cookery for fish. KEY QUESTIONS: What is the result when fish is overcooked? How does color indicate doneness? How does texture indicate doneness?

METHODS OF FISH COOKERY

TS19:56 Observe a professional food service employee preparing fish. NOTE: A film or videotape on preparation of fish could be used, if desired. KEY QUESTIONS: What must be done to finfish before cooking? Which shellfish are cooked alive? How are oyster and clam shells opened?

TS19:57 Demonstrate cooking fish by different methods: broiling, baking, deep frying, poaching, pan-frying, steaming, and boiling (shellfish). Have students practice preparing fish using one or more of the methods demonstrated.

TS19:58 Have students view slides of fish prepared by different cooking methods. Identify the cooking method used to prepare the fish shown in each slide. NOTE: Have an aide or co-worker take pictures with film for slides of your demonstrations of the methods of fish cookery. These slides can be used later for repeating this activity or for evaluation.

TS19:59 Conduct a rhythm game to practice describing ways to cook fish. Have students do the following: Sit in a circle. Clap your hands in a rhythm. Name a method of fish cookery. Choose one person to be "it." The person who is "it" should point to another person in the circle. If the person can make a statement related to the method of fish cookery, "it" must choose someone else. If the person cannot tell something about the method, she or he becomes "it." Teaching Aid 97, Fish Cookery, should be studied prior to the game.

TS19:60 Guide students to plan and serve a fish luncheon for teachers or another group. Use a theme such as "The Fish Hook," and decorate the dining area or sales booth appropriately.

CONVENIENCE FISH PRODUCTS

TS19:61 Have students look at an order form for fish products. Lead a class discussion on which products are convenience products. Compare prices of the convenience products to fresh fish prices. KEY QUESTION: What factors other than cost should be considered when purchasing fish products?

20

Eggs and Cheese

COMPETENCIES TO DEVELOP

- Prepare eggs and egg dishes.
- Prepare cheese and cheese dishes.

OBJECTIVES TO ACHIEVE

- Outline criteria for selecting eggs.
- Identify menu uses of eggs.
- Demonstrate various methods for preparing eggs.
- Describe uses of eggs as ingredients.
- Describe ways to use eggs as garnishes.
- Identify convenience egg products available.
- Demonstrate procedures for serving and garnishing eggs.
- Summarize procedures for holding and storing eggs and egg dishes.
- Identify various kinds of cheese.
- Outline criteria for selecting cheese.
- Identify menu uses of cheese.
- Describe procedures for preparing cheese and cheese dishes.
- Summarize procedures for holding and storing cheese and cheese dishes.

ASSIGNMENT

- Read Chapter 20 in the *Food Production, Management, and Services Reference Book.*

SELECTION OF EGGS

TS20:1* Exhibit eggs of different (natural) colors, sizes, and grades for students to examine. Explain the differences in color, sizes, and grades. KEY QUESTIONS: Are brown eggs less nutritious than white eggs? Why? What is indicated by a small air cell? a large air cell? What is the difference in minimum weight between two sizes of eggs? If all sizes are not available for the display, show Teaching Aid 98, Sizes of Eggs.

TS20:2 Have students view Teaching Aid 99, Grading of Eggs. Lead a class discussion on the appearance of different grades of eggs. Break open an egg of each grade, and arrange it on a flat surface for comparison. Ask students to examine the eggs to determine what grade description each egg meets.

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* TS 20:1 indicates teaching strategy, chapter 20, number 1.

TS20:3 Invite the school cafeteria manager to speak to the class on the forms of eggs used in school food production. Have each student prepare a written or oral summary following the guest lecturer.

TS20:4 Have students observe a display of fresh, frozen (whole eggs - whites and yolks), and dried or dehydrated eggs. Lead a class discussion on uses for each form. (For example, fresh eggs are used in preparation of all types of baked products. Reconstituted dried eggs are used for scrambled eggs or in omelets.)

TS20:5 Demonstrate how to reconstitute dried eggs. Prepare scrambled eggs for students to see and taste. KEY QUESTIONS: Is there any difference in how the eggs are prepared? Is there a difference in appearance? Is there a taste difference?

MENU USES FOR EGGS

TS20:6 Have students name different menu items made primarily with eggs. (Examples include entrees served at breakfast, lunch, or dinner; desserts; baked products; sauces and dressings; salads; and a coating agent for baked or fried foods.)

TS20:7 Lead students to brainstorm to develop a flip chart which describes the many uses of eggs in food preparation. Include eggs used as ingredients in other dishes. The chart might be divided into three sections as follows: 1) Whole Eggs, 2) Egg Yolks, and 3) Egg Whites.

METHODS FOR PREPARING EGGS

TS20:8 Have students take part in an egg cookery lab on a rotation basis. Those in Group 1 will begin with fried eggs; Group 2, scrambled eggs; Group 3, poached; Group 4, omelet; Group 5, cooking in the shell; and Group 6, baked eggs. On completion of one variety of egg cookery, proceed to the next until everyone in the class practices preparing each type of egg.

TS20:9 Have students develop and write guidelines for preparing each type of egg cookery practiced in the lab. Ask that the equipment needed and correct cooking temperatures be included. Review the responses in class and correct any misconceptions regarding egg cookery. Teaching Aid 100, Egg Cookery, may be used as a handout for review.

EGGS AS INGREDIENTS

TS20:10 Demonstrate the use of eggs as binders, thickeners, and leavening agents. Allow students to practice separating egg whites from yolks and beating the egg whites for a meringue. KEY QUESTIONS: Why should egg whites be at room temperature before beating? What will happen if fat comes in contact with the egg whites? How can egg whites be stabilized during the beating process? How can the soft-peak stage be identified? the stiff-peak stage?

TS20:11 On a chart, list the six ways eggs are used as ingredients (clarifier, binder, emulsifier, thickener, coating, and leavening). Divide the class into six groups, and ask each group to prepare a dish using eggs in one of the six ways. Have groups then explain to the class the function of the egg in their dish. (Example of dishes include beef stocks, salmon croquettes, ice cream, pudding, breaded chicken, and meringue cookies.)

EGGS AS GARNISHES

TS20:12 Instruct students to work with a partner to find unique ways of garnishing different dishes with eggs. Have groups compile and list their ideas on the board.

TS20:13 Demonstrate how hard cooked eggs can be used as garnishes in salads, cream sauces, canapes, and other foods. Show as many different ways as possible to cut, dye, and decorate with eggs.

CONVENIENCE EGG PRODUCTS

TS20:14 Display convenience egg products to the class. Have students investigate differences in price, time, and preparation procedures for each product compared to the same product made from ingredients. Lead a class discussion on the findings. KEY QUESTIONS: Does the amount of time saved justify the higher cost of the convenience product? Is the product acceptable to the consumer? How many steps in preparation may be eliminated by use of the convenience product? What are advantages and disadvantages of convenience egg products?

SERVING AND GARNISHING EGGS

TS20:15 Lead students to plan and prepare a brunch or luncheon for teachers or members of the advisory council. Have students prepare and serve egg dishes such as omelets, garnishing each plate attractively. KEY QUESTIONS: How can the omelet be kept hot if it is prepared in advance? What garnishes will provide a contrast in color and texture?

TS20:16 Have students prepare deviled eggs to be served cafeteria style with salads. Garnish the eggs with pimento, bell pepper, olives, radishes, or herbs and spices. Ask other students to prepare hard cooked eggs for use in salads as garnishes. KEY QUESTION: What causes the outer edge of the yolk to turn green on some hard cooked eggs?

HOLDING AND STORING EGGS AND EGG DISHES

TS20:17 Divide the class into four groups, and have students develop guidelines for holding and storing fresh eggs, frozen eggs, and dried eggs prior to use; and holding and storing cooked eggs and egg dishes. Have one member of each group explain the group's guidelines to the class. Have students compare the guidelines developed in class with the guidelines on Teaching Aid 101, Storage of Eggs.

TS20:18 View an audiovisual on egg preparation. Note the following: the importance of heat control in cooking all varieties of egg dishes, inability to hold many of the egg dishes for a period of time, and the texture and appearance of egg dishes.

SELECTION OF CHEESE

TS20:19 Have students look at an order form to determine the types of cheeses available. Lead a class discussion on ways to decide which cheese to select. KEY QUESTIONS: In what way will the cheese be used? Will it be cooked or melted? Which cheeses have very strong flavors? How are the strong flavored cheeses usually served?

TS20:20 Display a poster showing the various cheeses available, the varieties of cheese, and the shapes and containers in which cheese may be purchased. NOTE: Posters or other visual aids should be available from major cheese manufacturers or distributors. Teaching Aid 102, Forms of Cheese, may be used to acquaint students with the various forms in which cheese is available.

KINDS OF CHEESES

TS20:21 View an audiovisual on cheeses. Have students look for information such as the differences in natural and process cheese, the differences in ripened and unripened cheese, the names of cheeses in each category, and imitation vs. natural or processed cheese. Have students summarize in writing information presented.

TS20:22 Have students take part in a cheese-tasting party. A tray or plate of different types of cheeses may be prepared and each sample numbered. Students should be given a chance to view, taste, and examine the texture of each classification of cheese. Lead a class discussion on the differences and see how many of the unlabeled cheeses the students recognize. Place labels with the cheeses and discuss the varieties available in each classification (hard, blue mold, semihard, semisoft, and soft). KEY QUESTIONS: Which cheeses are new to you? Which ones would be good served with crackers or fruit? Which would make good sandwiches?

MENU USES FOR CHEESE

TS20:23 Lead a class discussion on foods prepared with different types of cheeses. KEY QUESTIONS: What is your favorite cheese dish? When do you eat it? What types of cheeses are used in cooking? What does "au gratin" mean?

TS20:24 Have students plan breakfast, lunch, and dinner menus that include a cheese dish. Remind students that cheese may be used as an appetizer, main dish, accompaniment, and dessert.

TS20:25 Have students select a card naming a dish containing cheese. Ask one student to name aloud a type of cheese which could be used in that dish. Does the class agree? If not, what cheese do they suggest? (Examples include pizza, stuffed tomato, lasagna, macaroni and cheese, banana-bread finger sandwiches, taco salad, au gratin potatoes, grilled cheese sandwiches, spaghetti, and broccoli and cheese casserole.)

PREPARING CHEESE AND CHEESE DISHES

TS20:26 Invite a National Dairy Council representative to demonstrate cheese cookery techniques. KEY QUESTIONS: What is the purpose of grating cheese before adding it to other foods? What temperatures are used in cheese cookery? Why should recipe directions be followed? Why should overheating and cooking too long be avoided?

TS20:27 Set up a demonstration to show the effects of high temperature on cheeses. Prepare a toasted cheese sandwich under high heat and medium-low heat. Have students compare the quality of the two products.

TS20:28 Use Teaching Aid 103, Rules for Cooking with Cheese, as a transparency or a handout. Explain rules for cooking with cheese and for preparing a cheese dish.

TS20:29 Select a cheese dish and cut the recipe ingredients in half. Divide the class into two groups. Have one group prepare the recipe with processed cheese and the other group prepare the other with cheddar cheese. Compare the experiences of the two groups as to ease of blending in the cheese; the time required for preparation; and cost, flavor, texture, and appearance of the finished product.

TS20:30 Have students prepare one or more of the following cheese dishes: cheese rarebit, cheese souffle, macaroni and cheese, or cheese fondue. Ask students to observe the rules for cooking cheese included on Teaching Aid 103, Rules for Cooking with Cheese. Evaluate the products.

TS20:31 Demonstrate different methods for grating or shredding cheese. Exhibit hand graters and food processors. Let students practice using the different pieces of equipment. Lead a class discussion on the amount of time required to accomplish the task.

HOLDING AND STORING CHEESE AND CHEESE DISHES

TS20:32 Demonstrate the steps in proper storage of cheeses. Explain the following: length of storage time for ripened and unripened cheeses, the need for tight wraps around some cheeses, colder temperatures necessary for unripened cheeses than for ripened, and effects of freezing on the flavor of cheese. NOTE: Impress upon students that cheese which has molded is still good. Simply cut off the molded parts and throw them away. Point out, however, that decisions of this sort in the work place would need to be cleared with the food service manager.

TS20:33 Provide several examples of cheese which has been stored incorrectly. Have students play "Who Can Guess What Happened?" to learn about storing cheese. Have students look at and smell cheese that has *not* been stored correctly. After each person in the class has seen and smelled the cheese, see who can guess how the cheese was stored incorrectly. NOTE: Play the same game for evaluation and compare several cheeses that have been stored correctly and incorrectly. Have students record which cheese was stored correctly and which was stored incorrectly.

21

Cereals and Pastas

COMPETENCIES TO DEVELOP

- Prepare cereal and pasta products.

OBJECTIVES TO ACHIEVE

- Identify cereals and pastas.
- Outline criteria for selecting cereals and pastas.
- Describe convenience cereal and pasta products available.
- Describe menu uses for cereals and pastas.
- Demonstrate methods for preparing cereals and pastas.
- Summarize procedures for holding and storing cereal and pasta products.

ASSIGNMENT

- Read Chapter 21 in the *Food Production, Management, and Services Reference Book.*

CEREALS AND PASTAS

TS21:1* Use Teaching Aid 104, Components of Cereal Grains. Lead a class discussion on the parts of grain and have students repeat the names and point out the location of each part. KEY QUESTIONS: Which part contains the most fat? Which part contains the fiber? Which part contains the most starch and protein?

TS21:2 Display various kinds of uncooked cereal and pasta products. Put a small amount of each product in unlabeled custard cups or small bowls for viewing. Have students write the number and name of each product that they can identify. Have them check their own papers as you identify each product. KEY QUESTIONS: Which products are cereals? Which are pastas? Which must be cooked? Which are ready-to-eat? Which products are noodles? macaroni? spaghetti?

TS21:3 Have a student volunteer visit a local supermarket and report to the class the number of varieties of pasta and the cost per ounce of each available type. Tell students how many ounces of each product equals one serving, then have them determine which product is the most expensive and which is the least expensive.

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* TS 21:1 indicates teaching strategy, chapter 21, number 1.

TS21:4 Have students study menus from a variety of restaurants to determine what cooked cereals are served. List on the board the three cereals offered most often. Ask students to check the menu again to determine the types of cold cereals offered. Add the three cold cereals to the list on the board. KEY QUESTIONS: What cereals are available in restaurants? From which grains are the most popular cereals made?

SELECTION OF CEREALS AND PASTAS

TS21:5 Show Teaching Aid 105, Grains for Breakfast Cereals. Have students locate and identify the three parts of each type of grain. KEY QUESTIONS: Which parts may be removed in processing? Which type of rice is considered the most nutritious? Why? What kind of wheat is used to make the best pastas?

TS21:6 Set up an exhibit of packages of cereal and pasta products. Have students examine the labels recording the weight, the nutrient fortifications, the sugar content, the number of servings, and the cost. Explain one example on the board to demonstrate how to figure the cost per serving of cereals or pastas. KEY QUESTIONS: Are nutrient fortifications necessary? Why? Why is sugar added to many cereal products?

CONVENIENCE CEREAL AND PASTA PRODUCTS

TS21:7 Lead a class discussion on convenience cereal and pasta products. Demonstrate cooking one or two servings of regular oatmeal, three minute oatmeal, and instant oatmeal. Instruct students to compare the time required for preparation, texture and appearance, and taste of the product. Have students vote on which oatmeal they prefer. NOTE: Another product such as rice may be used, if desired. KEY QUESTION: Why do restaurants prefer to use regular rice and pastas that are not precooked?

MENU USES OF CEREAL AND PASTA PRODUCTS

TS21:8 Have students suggest ways of using cereal and pasta products in all segments of the menu. Lead a class discussion on the use of these products as meat extenders, bread substitutes, potato substitutes, and as ingredients in other dishes.

TS21:9 Have students plan a menu for a well balanced meal, including a serving from each of the food groups. Each student should include a cereal or pasta dish to represent the Bread, Cereal, Rice, and Pasta Group. Have students share menus in class and vote on the best plan. NOTE: Students may plan menus for breakfast, lunch, or dinner.

COOKING CEREALS AND PASTAS

TS21:10 Lead a class discussion on the quality guidelines for cooked cereals and pastas. Have students record these guidelines in a notebook for use in evaluating the products prepared in class. Include the following guidelines: cooked cereals should be moist and free from lumps, not gummy or pasty; cooked pastas should not stick together or be overcooked to the point of falling apart, but should be tender.

TS21:11 Assign each group of students a different type of cereal product to cook. Instruct them to study package directions, then use a heavy pot, steam kettle, or compartment steamer to prepare the cereal. Have students evaluate each product according to the guidelines for quality. If any of the products do not meet these quality standards, have the group decide what the problem was and inform the class of the cause.

TS21:12 Demonstrate the amount of expansion of pasta and rice by measuring one cup of macaroni, one cup of noodles, and one cup of rice to be cooked. Have students prepare each product according to directions, then measure the amount of each cooked product. KEY QUESTIONS: Which product expanded the most during cooking? the least? How much cooked rice is a standard serving? How much rice should be cooked to yield 25 servings?

TS21:13 Have students plan, prepare, and serve a spaghetti and salad luncheon for teachers or another group. Students should calculate the amounts of ingredients needed to prepare the luncheon as well as determine the amount to be charged in order to recover the costs. Following the luncheon, have students evaluate the quality of the spaghetti. KEY QUESTION: If the luncheon is repeated, what could be done to improve the quality?

HOLDING AND STORING CEREALS AND PASTAS

TS21:14 Lead a class discussion on the reasons for storing cereal and pasta products in tightly covered containers in a cool, dry area. KEY QUESTIONS: What part of the grain causes these products to become stale if not stored correctly? What effect would moisture cause during storage?

TS21:15 Demonstrate holding techniques for cooked spaghetti. Cook 8 to 10 ounces of spaghetti and divide into two portions. Drain and rinse one portion of the spaghetti, then cover with cold water and place in the refrigerator overnight. Drain the remaining portion, but *do not* rinse, then place the sample in an uncovered bowl, and store in the refrigerator overnight. Ask students to compare the two samples on the following day. KEY QUESTIONS: Which sample looks best? How should the spaghetti be reheated for serving?

22

Vegetables and Fruits

COMPETENCIES TO DEVELOP

- Prepare vegetables and fruits.

OBJECTIVES TO ACHIEVE

- Summarize considerations in selecting vegetables and fruits.
- Identify menu uses of vegetables and fruits.
- Describe preparation needed for vegetables and fruits.
- Summarize procedures for cooking vegetables and fruits.
- Outline procedures for serving and garnishing vegetables and fruits.
- Cite guidelines for holding and storing vegetables and fruits.

ASSIGNMENT

- Read Chapter 22 in the *Food Production, Management, and Services Reference Book.*

SELECTING VEGETABLES AND FRUITS

TS22:1* Prepare two identical trays of raw vegetables and fruits with toothpicks inserted in each piece. Have students wash hands, then divide the class into two teams. Ask one student from each team to assist with the blindfolds and another to assist with scorekeeping. Set a time limit of 10-15 minutes and have each team select a member to be first. Ask the two students who are "first" to come to the front of the room and be blindfolded. Hand each student a fruit or vegetable from the tray to feel, smell, taste, and then identify by type and name. Each correct identification earns a point for that team. Rotate students at a fast pace so that everyone has a turn. The team with the most points may be awarded a privilege or small prize. Discuss the results of the identification game and correct any misinformation.

TS22:2 Lead a class discussion on the forms in which vegetables and fruits are available. Obtain one vegetable and one fruit in as many different forms as possible for students to compare. (Examples include fresh, frozen, canned, and dried peaches and fresh, frozen, canned, and dried black-eyed peas.) Ask students to compare the amount of time for preparation each form requires and the cost per serving. Have students cook the products that need cooking and compare the taste of the different forms. KEY QUESTIONS: Which form is least expensive? Which form is most expensive? Which form requires the most time for preparation? Which form tastes the best? Would the different forms be used for the same purposes?

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* TS 22:1 indicates teaching strategy, chapter 22, number 1.

TS22:3 Display three cans of pears, peaches, or beans in different grades with the labels removed. Place some of the food in saucers in front of each can. Have students examine the contents and see if they can determine the grades of the food. KEY QUESTIONS: Which grade would be used to assemble individual salad plates? Which grade might be used in a casserole or bowl of salad? What is the difference in price between each grade?

TS22:4 Lead a class discussion on the importance of storing frozen foods at the correct temperature. KEY QUESTIONS: Why should food that has partially thawed be cooked at once? What indicates that food may have thawed and been refrozen? What grades of vegetables and fruits are used in frozen foods?

TS22:5 Ask students to select one vegetable or one fruit as their topic for a research paper or report. Have them include information on where and how it grows, when it is "in season," what nutrients it provides, how to select and store it, and how to prepare it. NOTE: If oral reports are given, a time limit may need to be determined before beginning.

MENU USES FOR VEGETABLES AND FRUITS

TS22:6 Lead a class discussion on the various ways vegetables and fruits can be used in menus. Have students give examples of vegetables and fruits as appetizers, soups, entrees, accompaniments, and desserts. KEY QUESTIONS: Which vegetables can be served as an entree? What food group compliments vegetable protein to make it complete? How many servings of vegetables and fruits should be eaten each day? What is the serving size?

TS22:7 Have students plan three different menus for lunch and dinner which may include the correct number of servings of fruit and vegetables. Ask that the students include at least one deep yellow or deep green vegetable per menu. KEY QUESTIONS: Why are deep yellow or deep green vegetables so important? What vitamins are provided by vegetables and fruits?

PREPARATION OF VEGETABLES AND FRUITS

TS22:8 Lead a class discussion on the methods for cleaning vegetables and fruits before use. KEY QUESTIONS: How should vegetables and fruits be pared to prevent loss of nutrients? How can discoloration be prevented on cut fruits such as bananas and avocados? How can lettuce be made crisp?

TS22:9 Demonstrate how to dice, mince, chop, shred, and slice vegetables and fruits. Review correct techniques for using knives while presenting the demonstration. Teaching Aid 106, Preparing Vegetables in a Variety of Shapes, could be used with this topic. Have students practice these preparation techniques.

COOKING VEGETABLES AND FRUITS

TS22:10 Use Teaching Aid 107, Rules for Preparing and Cooking Fresh and Frozen Vegetables and Fruits. Discuss each rule and answer any questions.

TS22:11 Lead a class discussion on cooking canned and dried vegetables and fruits. KEY QUESTIONS: How does cooking canned products vary from cooking fresh or frozen products? How does cooking dried foods vary from cooking fresh or frozen foods? For what reason are dried foods soaked in water?

TS22:12 Demonstrate cooking one or more vegetables by the following techniques: boiling, baking, broiling, sauteing, frying, steaming, and microwaving. Have students record the amount of time and the steps used to prepare and cook the food by each method. NOTE: If some steps in preparation are done before class to save time, give students the information in the proper sequence and also an estimate of the time used. Discuss and explain each method of cooking during the demonstration. Use Teaching Aid 108, Cooking Methods for Vegetables and Fruits, at the end of class to reinforce the lesson.

TS22:13 Divide the class into seven cooking groups, and assign each group one of the cooking methods demonstrated in the activity above. Have the group select, prepare, and cook an appropriate vegetable or fruit using their assigned method. Evaluate the group on teamwork, knowledge of methods, and product quality.

TS22:14 Ask each student to prepare a fruit or vegetable at home for a family meal. Students should select methods of cooking that they have not used before. Ask each student to present a three-minute oral report in class to share what was prepared, the method used, and the quality of the final product.

SERVING AND GARNISHING VEGETABLES AND FRUITS

TS22:15 Ask students to look through magazines for examples of ways to garnish fruit and vegetable dishes. Also have them collect examples of vegetables and fruit used as garnishes for other foods. Lead students to share with the class. The most unique ideas might be put on a bulletin board.

TS22:16 Lead students to brainstorm ways to attractively garnish the following dishes: rice, boiled yellow squash, green beans, baked apples, cooked cauliflower, and broiled grapefruit. KEY QUESTIONS: What types of garnishes might be more appealing to young children? to elderly individuals? How could garnishes be used to enhance the appetite of people who are ill? What are some spices and herbs that are used to garnish vegetables and fruits?

TS22:17 Divide the class into four groups, and provide one fruit plate appropriate for the age group or occasion of the assignments for each group to garnish. Have one person from each group draw the group's assignment and select the appropriate fruit plate. Assignments might include a four-year-old's birthday, Thanksgiving dinner for the family, an Easter luncheon, or a nursing home patient tray. Provide several kinds of appropriate garnishes and let students be as creative as possible. Ask each group to display their fruit plate to the class and explain why each plate is appropriate for the occasion and why each garnish was chosen. Lead a class discussion on how each plate could be changed to make it even more appropriate for the occasion or age group.

TS22:18 Invite a utilities company home economist to demonstrate or conduct a mini-workshop on the preparation and uses of fruit and vegetable garnishes. If a representative is not available, you may wish to do the demonstration yourself. Teaching Aid 87, Fruit and Vegetable Garnishes (from Chapter 13, TS13:62), could be used as a transparency or a handout to reinforce this lesson.

HOLDING AND STORING VEGETABLES AND FRUITS

TS22:19 Demonstrate the effects of proper and improper storage by conducting the following experiment. Separate a head of lettuce into five pieces. Have students

1. place one piece in the refrigerator unwrapped,
2. put a section in a plastic bag and store it in the refrigerator,
3. put another piece in a plastic bag and store on a pantry shelf,
4. put one section in another plastic bag and store in the freezer, and
5. store the fifth section unwrapped in the crisper drawer of the refrigerator.

Leave all samples for two days, then have students examine them to determine the proper storage method for lettuce. NOTE: The sample from the freezer will need to thaw for one to two hours prior to class so that students will be able to see the effects of freezing on the lettuce.

TS22:20 Lead a class discussion on storage procedures for each form of vegetable and fruit including fresh, canned, frozen, and dried. Give students information on storage before preparation, proper holding times and temperatures between preparation and serving, and correct storage of leftovers. Ask students to compile the information into a chart for future quick reference.

TS22:21 Invite a panel of food service managers to speak to the class regarding storage facilities and methods used in their businesses. Ask students to prepare questions in advance on topics such as rotation of frozen food, rotation of canned goods, checking temperatures in walk-in boxes, and suggestions for storing leftovers.

23

Breads

COMPETENCIES TO DEVELOP

- Prepare breads.

OBJECTIVES TO ACHIEVE

- Identify types of breads.
- Identify the ingredients used in breads.
- Identify menu uses of breads.
- Demonstrate methods of preparing breads.
- Identify convenience bread products available.
- Describe procedures for serving breads.
- Summarize procedures for holding and storing breads.

ASSIGNMENT

- Read Chapter 23 in the *Food Production, Management, and Services Reference Book.*

TYPES OF BREADS

TS23:1* Lead a class discussion on the differences in quick breads and yeast breads. KEY QUESTIONS: What leavening agents are used in quick breads? What are some examples of quick breads? What are some examples of yeast breads? What causes yeast breads to rise?

TS23:2 Exhibit several examples of quick and yeast breads for students to examine. Cut the breads so that the texture can be compared. KEY QUESTION: Which type of bread is more dense? Which type is lighter in texture? What are the distinguishing features of quick breads? of yeast breads?

TS23:3 Show an audiovisual on making both types of breads. Ask students to take note of the various types of quick breads shown and the various types of yeast breads shown. Also have students note the leavening agents used in each type of bread.

BREAD INGREDIENTS

TS23:4 Display different kinds of flour including white, whole wheat, graham, rye, masa, and cornmeal. Have students feel the texture and observe the color of each kind of flour. KEY QUESTIONS: What types of bread are made from each kind of flour? Which flour has the finer texture? What is all-purpose flour? What has been added to flour that is "enriched"? What is self-rising flour? What is gluten? What causes the flours to be different colors?

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* TS 23:1 indicates teaching strategy, chapter 23, number 1.

TS23:5 Lead a class discussion on liquids that are generally used to make breads. KEY QUESTIONS: If water is used for the liquid, what type of bread will result? What kind of crust will the bread have? If milk is used for the liquid instead of water, what will happen to the texture of the bread? Will the bread made with water stay fresh longer than the bread made with milk? Why? How would the use of buttermilk as opposed to whole milk affect the leavening agent to be used?

TS23:6 Have students list on paper each type of leavener and explain how each type works. Ask for volunteers to share their list with the class. Ask other students to add to the lists or provide additional explanations (if possible). Make sure the students include chemical leaveners such as baking powder and baking soda, yeast, air, and steam.

TS23:7 Lead a class discussion on the role of salt as an ingredient in bread. KEY QUESTIONS: What would happen to the bread if the salt was left out? What happens if too much salt is added? Is salt an essential ingredient? Why?

TS23:8 Ask students to describe the functions of sugar and fat as ingredients in breads. KEY QUESTIONS: Are the functions similar or different? Explain. What kinds of sugar can be used in breads? What kinds of fat can be used? What happens to yeast if too much sugar or too much fat is used?

TS23:9 Explain the use of eggs and flavorings in breads. Show students some herbs, spices, flavorings, and food items such as cheese and onions that may be used to create interesting and flavorful breads.

MENU USES OF BREADS

TS23:10 Lead a class discussion on the ways bread may be used in menus; include their use as a main dish, accompaniment, snack or appetizer, ingredient in other dishes, and dessert. Write the different menu uses on the board and have students call out examples for each category. List the examples under the category titles.

TS23:11 Obtain a copy of the school lunch menus for a week or a month. Have students identify the food items that are a form of bread or contain bread or grain as an ingredient. KEY QUESTIONS: How many times does bread appear in the menu list? Does it appear as bread or as an ingredient more often?

PREPARING BREADS

Quick Breads

TS23:12 Demonstrate the three methods of mixing quick breads for students. Have students list the steps, in order, for each of the methods as they observe the demonstrations.

Have students compare the biscuit, muffin, and cake methods and point out how the three methods differ. Discuss the potential problems that may be caused by over mixing when using the muffin or biscuit methods.

TS23:13 Divide students into three or six groups. Have each group prepare a quick bread using one of the three mixing methods. If three groups are named, have each group use a different method. If six groups are named, let three of the groups prepare a quick bread using a convenience product for comparison with the products made from a recipe. Have students share their experiences. Compare the convenience products to the traditional products in cost, flavor, and preparation time.

TS23:14 Use Teaching Aids 109, Quality Characteristics of Quick Breads: How Do You Rate Biscuits?, and 110, Quality Characteristics of Quick Breads: How Do You Rate Muffins? Go over the desired qualities in class and then have each group evaluate the products prepared in the activity above (TS23:13). Evaluate the products and compare the teacher evaluation with the student evaluation. Lead a class discussion on ways to correct any problems encountered in the lab experience.

Yeast Breads

TS23:15 Review with students the ten basic steps in making yeast breads described on pages 283-284 of the Reference Book as you demonstrate using the straight dough method. Provide an instant camera and assign one student to take pictures of the demonstration that will illustrate the ten basic steps. Number the pictures on the back in sequential order. The pictures can then be rearranged and students can test their knowledge by putting the pictures in correct order.

TS23:16 Explain the sponge and batter methods of mixing yeast bread doughs. Ask students to write a short paper on how these two methods differ from the straight dough method.

TS23:17 Have students practice making bread using the straight dough method. Divide the class into five groups, and have each group shape and pan the bread as follows: 1) plain loaf, 2) braided loaf, 3) cloverleaf rolls, 4) butterflake fan rolls, and 5) crescent rolls. As guides for shaping breads and rolls, students may use the following Teaching Aids: 111, Plain Loaf Bread; 112, Braided Loaf; 113, Cloverleaf Rolls; 114, Butterflake Fans; and 115, Crescent Rolls. Have students proof and bake the yeast breads.

TS23:18 Explain the sweet dough method of mixing to students. Have students mix a sweet dough recipe as verbal instructions are given. Use the following Teaching Aids: 116, Cinnamon Rolls; 117, Coffee Rings; 118, Doughnuts; and 119, Danish Pastry. Have students shape and pan the dough, then bake after proofing.

CONVENIENCE BREAD PRODUCTS

TS23:19 Invite a wholesale supplier or commercial bakery to send a representative to speak to the class on the convenience quick breads and yeast breads that are available. Ask that some products be shown to the class, if possible. Have students prepare questions regarding prices, amount of preparation required, and amount of time needed to prepare the convenience products.

TS23:20 Assign one or two students to interview several restaurant managers regarding whether their business uses convenience bread products and to what extent they are used. Have the interviewers ask if each restaurant has a baker on the staff. Ask the students to give a complete report to the class.

SERVING BREADS

TS23:21 Lead a class discussion on different ways restaurants serve hot breads, especially if it is one of their specialities. Examples may include a warm loaf covered with a napkin and served on a cutting board; hot cheese rolls served in a basket and covered with a napkin; hot assorted or speciality muffins served by a person who circulates among the patrons; hot rolls served from pans by a person who circulates among the patrons; hot hushpuppies served as an appetizer; and hot flour tortillas served in a covered dish.

HOLDING AND STORING BREADS

TS23:22 Lead a class discussion on proper storage techniques for fresh breads. KEY QUESTIONS: When should bread be wrapped or placed in a moisture-proof, airtight container? When should breads be frozen? How long will frozen bread keep? When should bread be stored in the refrigerator?

TS23:23 Have students demonstrate wrapping breads in foil and plastic wrap for storage. Let other students demonstrate making bread crumbs with the food processor and storing them in large self-sealed plastic bags in the freezer. Have students suggest three or four uses for the bread crumbs.

24 Desserts and Cookies

COMPETENCIES TO DEVELOP

- Prepare fruit desserts and fried desserts.
- Prepare puddings, custards, souffles, gelatin desserts, and frozen desserts.
- Make cookies, cakes, pies, pastries, and meringues.

OBJECTIVES TO ACHIEVE

- Name the types of desserts served in food service establishments.
- Identify convenience desserts used in food service.
- Summarize the techniques for preparing a variety of desserts.
- Describe procedures for serving and garnishing desserts.
- Outline procedures for holding and storing desserts.
- Identify the basic types of cookies.
- Identify convenience cookie products used in food service.
- Summarize techniques for preparing the basic types of cookies.
- Summarize techniques for coloring, icing, and garnishing cookies.
- Describe procedures for serving cookies.
- Outline procedures for holding and storing cookies.

ASSIGNMENT

- Read Chapter 24 in the *Food Production, Management, and Services Reference Book.*

TYPES OF DESSERTS

TS24:1* Have students examine various restaurant menus to determine what types of desserts are offered. List the different types on the board as students identify them. Lead a class discussion on the categories of desserts as listed in the competencies. Ask students to write the categories on a sheet of paper and then write each of the desserts listed on the board in its proper category. KEY QUESTIONS: Did any category not have desserts listed? If so, why might these desserts not be offered in restaurants? Which types are most offered?

TS24:2 Ask a few students to conduct a telephone survey of restaurants in the area to determine how many prepare their own desserts. Also ask what, if any, convenience products are used in their dessert menu or in dessert preparation. Have the students report their findings to the class.

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* TS 24:1 indicates teaching strategy, chapter 24, number 1.

TS24:3 Lead a class discussion on fruit desserts. KEY QUESTIONS: Do fruit desserts tend to be a seasonal dessert? Are fresh, frozen, or canned fruits more likely to be used in preparing desserts for a restaurant? What kinds of fruit desserts are served in the school cafeteria? How often are the fruit desserts served?

TS24:4 Exhibit plain and flavored gelatins and explain how they are used as desserts or as ingredients in other dessert recipes. Have students work in groups and experiment with softening plain gelatin. KEY QUESTIONS: Should plain gelatin be mixed with hot or cold water? What is the texture of unflavored gelatin when it has been mixed? How can flavored gelatin be fast-set?

TS24:5 Lead a class discussion on milk-based desserts. Point out the nutrition benefits of this type dessert. KEY QUESTIONS: What milk-based dessert is associated with ease of digestion? What two ways can custards be cooked? How can custards be varied? How are puddings thickened? How are custards thickened?

TS24:6 Lead a class discussion on frozen desserts. Explain the difference between ice cream, ice milk, sherbets, and ices. KEY QUESTIONS: What is the most popular frozen dessert? Is ice cream ever used as a garnish? What are some ways to garnish ice cream?

CONVENIENCE DESSERTS

TS24:7 Contact a wholesale grocer to determine what convenience dessert products are available, and obtain a price list if possible. Have students compare price per serving of a frozen cheesecake to the price per serving of a cheesecake prepared from a recipe. Furnish wholesale prices for the ingredients of the recipe for cheesecake. KEY QUESTIONS: What amount of personnel time would be required to prepare the recipe cheesecake? How would the frozen cheesecake require personnel time? How would the taste and quality of the frozen cheesecake compare with that of the recipe cheesecake? Would the recipe cheesecake taste and quality be the same each time it is made?

TS24:8 Have students compare the taste and texture of a canned pudding and a pudding made from a recipe. Have students use Teaching Aid 120, Comparison Record, to record their results. KEY QUESTIONS: Which pudding would you serve if you owned a restaurant? What factors other than taste and texture should be considered?

TS24:9 Exhibit three different forms of the same fruit that could be used in desserts. Examples include fresh, canned, and frozen peaches or fresh, canned, and dried (cooked) apples. Have students evaluate the convenience products and determine which product would be most satisfactory for use in desserts. Discuss the evaluations.

PREPARING DESSERTS

TS24:10 Use the fruit from the exhibit and demonstrate preparing several types of simple fruit desserts. Have students record the amount of time necessary for the preparation of each dessert. Let students sample the dessert. Then, based on time, effort of preparation, and taste, lead a class discussion on which dessert would be best for a restaurant menu.

TS24:11 Demonstrate preparing different kinds of gelatin desserts. Point out during the demonstration when to add fruits, what kinds of fruits may be used, substituting fruit juice for water, how much time to allow for setting, and how to use molds. Let students use the gelatin made in the demonstration and have a contest to see who can construct the most attractive or creative parfait. Provide supplies as needed. Have students vote and give a small prize or award to the winner.

TS24:12 Demonstrate preparing milk desserts. Prepare a pudding to demonstrate proper techniques. Lead a class discussion on why pudding and custards should be stirred during preparation, what happens to milk products if they are cooked too long, and what temperature should be used to cook milk-based desserts. Have students work in groups to prepare baked custards. Examine and evaluate the custards when done. Have students determine what caused any problems that may be apparent. Let students eat the custards.

TS24:13 Lead students to plan and set up a "Sweet Shop" to sell banana splits and sundaes made from purchased ice cream to students and teachers. Establish a rotation of duties so each student gets experience dipping the ice cream, adding the sauce or garnish, serving, and cleaning up. If successful, this activity might be repeated a certain day of the week for two or three weeks. Give students an evaluation following each serving day and encourage them to make suggestions for improvements.

TS24:14 Ask students to observe a soft ice cream dispenser on their next visit to a restaurant or ice cream store. Have students ask the person using the dispenser to explain briefly how it works and any necessary safety rules. Provide time in class for students to share information discovered.

TS24:15 Obtain a use and care booklet from a manufacturer of soft ice cream machines. Have students study the booklet or instructions, especially sanitation and cleaning of the equipment. Lead a class discussion on the methods and importance of sanitation of equipment where milk or milk products are stored.

GARNISHING AND SERVING DESSERTS

TS24:16 Demonstrate garnishing several types of desserts including fruit, gelatin, pudding, and a frozen dessert such as pumpkin squares. Lead a class discussion on the importance of selecting appropriate garnishes to enhance eye appeal through use of contrasting color, texture, and flavor.

TS24:17 Lead a class discussion on serving temperatures for desserts with students. KEY QUESTIONS: Which desserts may be served either hot or cold? Which desserts are best served warm? cold? frozen?

HOLDING AND STORING DESSERTS

TS24:18 Lead a class discussion on the importance of proper storage for desserts, especially those containing large proportions of milk and eggs. KEY QUESTIONS: When should freshly made cream pies be placed in the refrigerator? Why should pudding surfaces be covered with plastic film or waxed paper? What length of time could custards be safely stored in the refrigerator before use?

TS24:19 Use Teaching Aid 121, Tips for Dessert Storage and Service; lead a class discussion on proper storage for each type of dessert. As each type of dessert is discussed, have students indicate whether they prefer to have it served hot or cold. NOTE: This chart might also be used for review or evaluation by covering one or more blocks in each line and letting students fill in the information.

TYPES OF COOKIES

TS24:20 Divide the class into small groups. Have each group look up cookies in the index of some cookbooks. KEY QUESTIONS: What basic types of cookies are listed? What are some examples of cookies under each type? Ask groups to read aloud the general instructions given in the books for each type of cookie.

TS24:21 Divide the class into six groups. Give each group a large piece of butcher paper. Ask Group 1 to write down the type of dough for Bar Cookies and the general procedures for forming this type of cookie. Other group assignments will be: Group 2–Drop cookies; 3–Rolled Cookies; 4–Refrigerator Cookies; 5–Pressed Cookies; and 6–Molded Cookies. After each group has completed their work, tape their information sheets around the room for discussion and future reference.

CONVENIENCE COOKIE PRODUCTS

TS24:22 Lead a class discussion on convenience cookie products such as pre-measured mixes, refrigerator cookie dough, and bakery cookies. KEY QUESTIONS: Are these products used in food service? What sizes are available?

TS24:23 Following instructions on the label, have students bake a roll of refrigerated sugar cookie dough. While the cookies are baking, ask students to look up a quantity recipe for sugar cookies, estimate the cost of the ingredients, and divide by the number of cookies the recipe yields. Have students sample the baked cookies and bakery cookies of the same type. KEY QUESTIONS: Which cookie tasted best? Which cookie costs least? Would the amount of time and labor saved by using a convenience product justify the cost?

PREPARING COOKIES

TS24:24 Lead a class discussion on ingredients used in cookies. KEY QUESTIONS: What effect do eggs have on cookie dough? If a cookie dough is stiff, which ingredient is in high proportion to the others? Why are cookies made with molasses or honey soft? Which type of leavener results in a thick, moist cookie?

TS24:25 Demonstrate the preparation of various types of cookies. Have students list on paper the steps in preparation for each type of cookie.

TS24:26 Have students prepare a drop cookie dough. Ask students to portion part of the cookie dough by using a teaspoon and the other portion by using a number 40 dipper. After students bake the cookies, have them evaluate for uniform size and shape.

TS24:27 Ask students to prepare a sugar cookie dough and divide the dough into three portions. Have students roll and refrigerate one portion for slicing, chill the second portion before rolling and cutting, and roll and cut the cookies from the third portion immediately. Slice and bake the cookies from the roll when chilled, and roll and cut the cookies from the second portion that was chilled. KEY QUESTIONS: Which portion of dough was the easiest to work with? Which yielded a consistent, quality product? How long did it take the dough to chill?

TS24:28 Divide the class into groups. Have each group prepare their choice of either pressed, molded, or bar cookies. Ask students to use Teaching Aid 122, Cookie Characteristics, and evaluate their cookies. Compare the student evaluation with your evaluation. Have students package and freeze the remaining cookies to be sold later to teachers or other students.

COLORING, ICING, AND GARNISHING COOKIES

TS24:29 Lead a class discussion on decorating cookies. Demonstrate making a thin icing with powdered sugar; using an egg wash; and decorating with candies, colored sugars, and nuts. KEY QUESTIONS: What purpose does the egg wash serve? Should cookies be cooled before decorating?

HOLDING AND STORING COOKIES

TS24:30 Demonstrate correct marking and cutting techniques for bar cookies to achieve the desired yield. NOTE: This may be done on paper cut to actual pan sizes, or on actual cookies.

TS24:31 Use cookies made in class and let students practice arranging cookies on trays for attractive service. Also have students arrange individual servings of cookies for eye appeal. NOTE: Provide paper doilies to use as plate liners or tray liners. Lead a class discussion on proper storage techniques for cookies. Include the following points:

- Store crisp cookies in a container with a loose-fitting cover, except in a humid climate where crisp cookies should be stored in an airtight container.
- Store soft cookies in a container with a tight-fitting cover.
- Never store soft and crisp cookies together.
- Bar cookies may be stored in a covered baking pan.
- For longer storage, freeze cookies in a container with a tight-fitting lid by separating layers with waxed paper or plastic wrap.
- Stale cookies can be freshened by placing in a 300°F. oven for a few minutes to restore crispness.
- Soft cookies that have become hard can be softened by placing an apple slice or a piece of bread in the cookie container for a day or two.

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Cakes and Icings

COMPETENCIES TO DEVELOP

- Make cookies, cakes, pies, pastries, and meringue.
- Prepare and use icings, frostings, and fillings.

OBJECTIVES TO ACHIEVE

- Identify the types of cakes and their characteristics.
- Describe menu uses of cakes.
- Describe convenience cake products.
- Describe procedures for preparing cakes.
- Summarize procedures for cooling and storing cakes.
- Identify the types of icings, frostings, and fillings.
- Describe procedures for preparing icings, frostings, and fillings.
- Describe techniques for decorating cakes.
- Describe procedures for cutting and serving cakes.

ASSIGNMENT

- Read Chapter 25 in the *Food Production, Management, and Services Reference Book.*

TYPES OF CAKES AND THEIR CHARACTERISTICS

TS25:1* Have students view an audiovisual on the various types of cakes. NOTE: If an audiovisual is not available, use pictures from magazines or cookbooks to develop a bulletin board on various types of cakes. KEY QUESTIONS: How are cakes classified? What is a shortened cake? Which ingredients indicate that the cake is shortened? What is a foam cake? Which classification describes an angel food cake? a chocolate layer cake?

TS25:2 Invite a baker to speak to the class on commercial cake baking. Ask the baker to bring examples of shortened and foam cakes, if possible. Have students examine and compare the texture of the two types of cakes. Ask students to prepare questions prior to class. Questions might include the following: Are mixes used? How many cakes are mixed at one time? Which type of cake is the easiest to make? the hardest to make? Why?

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* TS 25:1 indicates teaching strategy, chapter 25, number 1.

MENU USES OF CAKES

TS25:3 Lead a class discussion on the various ways cakes are used in menus. Include cakes as snacks, cakes for dessert, and cakes to celebrate special occasions. Ask students to tell what their favorite cake is and whether they like it best for a snack, a dessert, or a special occasion.

TS25:4 Divide students into groups, and have each group suggest cakes appropriate for selected occasions such as Christmas, Valentine's Day, Thanksgiving, Easter, Halloween, and a wedding reception. Have each group share their selections with the class and cite reasons why they think that particular cake is appropriate for the occasion. Discuss the selections. KEY QUESTIONS: What factors influence ideas about what foods are appropriate for special occasions? In what ways do magazines and advertisements on television influence food selections?

CONVENIENCE CAKE PRODUCTS

TS25:5 Provide a "scratch" cake, a purchased frozen cake, a cake made from a mix, and a cake purchased from a bakery. Label the cakes A, B, C, and D. NOTE: All four cakes should be the same type, flavor, and freshness for this comparison. Have students compare the four cakes on appearance, texture, and flavor. Instruct students to rank the cakes from first through fourth. Reveal the origin of the cakes and discuss the cost of each cake. KEY QUESTIONS: Would adding the cost factor cause any change in the rankings of the cakes? If you were the manager of a restaurant, which cake would you choose for the menu? Why?

TS25:6 Lead a class discussion on how master cake mixes can be prepared and used in a food service kitchen. KEY QUESTIONS: How should the ingredients be combined? How should the mix be stored? How can the mix be varied for different flavors of cake?

PREPARING CAKES

TS25:7 Lead a class discussion on the proper techniques for preparing a sheet cake including ingredients, mixing method, panning the batter, and baking temperature and time. Have students work in groups to prepare a sheet cake using a commercial mixer. Invite a cafeteria supervisor or another home economics teacher to evaluate the finished cakes.

TS25:8 Review information on the preparation of foam cakes. Divide the class into cooperative learning groups, and have each group prepare an angel food cake, a sponge cake, or a chiffon cake. While the cakes are baking, have each group describe the procedure they used to mix and bake the cake. Also ask the group to describe quality characteristics for the cake they prepared. Evaluate the cakes by checking for the quality characteristics designated by the group.

TS25:9 Lead a class discussion on the experiences students encountered in preparing the two types of cakes. KEY QUESTIONS: Was the shortened cake easier to prepare than the foam cake? Which type of cake turned out best? What tasks will you do differently when making cakes again?

COOLING AND STORING CAKES

TS25:10 Demonstrate proper techniques for cooling shortened and foam cakes. KEY QUESTIONS: When should each type by removed from the pan? How should a shortened cake be loosened from the pan before removal? What may happen to a shortened cake if it is allowed to cool completely in the baking pan? What may happen to a foam cake that is removed from the pan too soon?

TS25:11 Lead a class discussion on storage techniques for both shortened and foam cakes. KEY QUESTIONS: What type of wrappings should be used? Why should cakes be refrigerated? How long can cakes be stored in the freezer?

TYPES OF FROSTINGS, ICINGS, AND FILLINGS

TS25:12 Lead a class discussion on uncooked frostings and icings. KEY QUESTIONS: What are the differences in ingredients and techniques for making icing, creamed frosting, and royal icing? What is icing typically used for? What are the uses for creamed frostings? What is royal icing used for?

TS25:13 Divide the class into three groups. Give each group a large sheet of butcher paper or poster board and a magic marker. Have groups review information on cooked icings and frostings and compile a list of characteristics related to one of the following: fondant, boiled frosting, or glaze. Ask one student from each group to share the group's information with the class.

PREPARATION OF FROSTINGS, ICINGS, AND FILLINGS

TS25:14 Have students view an audiovisual on frosting cakes. Ask the students to list the steps for frosting a cake based on the film information. Discuss.

TS25:15 Instruct each student to prepare a small recipe of creamed frosting. Sample and rate the quality. If the frosting did not turn out well, have students try to determine the reason. Supply two cupcakes per student. Have each student frost one cupcake using a spatula or knife and frost the second cupcake by turning the cupcake upside down and twirling it in the frosting. KEY QUESTIONS: Which cupcake looks best? Did crumbs fall into the icing? Which technique is best for cupcakes? Which would be best for a layer cake? How should the cake be prepared for frosting?

TS25:16 Demonstrate the preparation of boiled frosting. Use a candy thermometer to test the doneness of the syrup. Explain to students that this type of frosting is the most difficult one to prepare. During the demonstration, point out the places where problems may occur (cooking syrup to correct temperature, beating egg whites to correct consistency, and adding syrup slowly while continuing to beat egg whites.)

DECORATING CAKES

TS25:17 Have students scan a cake decorating book that illustrates steps for decorating a cake and depicts cakes that have been decorated. KEY QUESTIONS: What kind of decorating tools were used? What kinds of icings were used? Why does color play an important role in cake decorating?

TS25:18 Lead a class discussion on the purpose of using a decorating bag, and have students examine both cloth and parchment bags. Instruct students to make a decorating bag out of parchment paper following instructions on Teaching Aid 123, Parchment Decorating Bags. Save this for use in TS25:21.

TS25:19 Demonstrate how to use various decorating tips with a cloth decorating bag. Include a leaf tube, petal or rose tube, star tube, round tube, and drop flower tube. The demonstration may be done on practice boards or the back of a cake tin.

TS25:20 Have students prepare white decorating icing. Divide the icing into several small portions and have students add liquid food color to one portion, paste food color to another portion, and create a secondary color by combining two primary colors. KEY QUESTIONS: How much food color should be added at one time? What can be done if the frosting becomes too thin from adding liquid color? How does the quality of paste color compare to liquid color?

TS25:21 Have students cut the tip of their parchment bag (made in TS25:18) for a leaf design. Give each student a practice board and provide several cloth decorating bags and tips. Ask each student to create a practice design for a special occasion cake on the practice board, using the icing colored in TS25:20. Require that each student use at least the writing tip and a flower tip with the cloth bag and use the parchment bag for leaf designs.

TS25:22 Have students work in small cooperative learning groups to prepare demonstrations on decorating cakes to present to FHA/HERO, for recruiting students, or other related activities. Allow students to practice their demonstrations by presenting them to the class.

CUTTING AND SERVING CAKES

TS25:23 Have students practice marking cakes for cutting specific numbers of servings by giving them 8", 9", and 10" circles cut from butcher paper. Also provide an 8" x 8" and a 9" x 9" square, and rectangles 9" x 13" and 18" x 25" cut from butcher paper. Have students mark with a pencil the 8" circle for 12 equal servings, the 9" circle for 16 servings, the 10" circle for 20 servings, the 8" square for 10 servings, the 9" square for 16 servings, the 9" x 13" rectangle for 30 servings, and the 18" x 25" for 48 servings. Have students check their answers against Teaching Aid 124, Cutting Cakes.

TS25:24 Display cutting and serving equipment that may be used to serve cake. Include a long, sharp knife, a cake server, and the type of long-tined fork that is often used for cutting and serving foam cakes. Lead a class discussion on how to cut and serve cake without handling it, and explain how to use a plastic mitt for handling when serving a special occasion cake.

26 Pastry and Pies

COMPETENCIES TO DEVELOP

- Make cookies, cakes, pies, pastries, and meringues.

OBJECTIVES TO ACHIEVE

- Identify kinds of pastry products.
- Summarize menu uses of pastry products.
- Identify convenience pastry products.
- Identify the types of pastry dough.
- Demonstrate procedures for preparing pastry dough.
- Identify the types of pastry fillings.
- Demonstrate procedures for preparing pastry fillings.
- Identify the types of pastry toppings.
- Describe procedures for preparing pastry toppings.
- Summarize the holding and storage of pastry products.
- Outline procedures for garnishing and serving pastry products.

ASSIGNMENT

- Read Chapter 26 in the *Food Production, Management, and Services Reference Book.*

KINDS OF PASTRY PRODUCTS

TS26:1* Lead a class discussion on types of pastry products. Include cream puffs, puff pastry, tarts, turnovers, and pies. KEY QUESTIONS: What is the ingredient that makes a pastry dough different from other kinds of dough? Is a croissant considered a pastry or a bread? Why?

TS26:2 Ask students to visit a bakery or the bakery section of the supermarket to view, price, and list a variety of pastry products. If students choose to visit a supermarket, they should look at fresh and frozen baked pastry products. Have students report findings in class and compare prices from the different stores. Save this list for use in TS26:5.

MENU USES OF PASTRY PRODUCTS

TS26:3 Lead a class discussion on menu uses of pastries. Ask students to name pastries that are used for main dishes, appetizers, and desserts.

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* TS 26:1 indicates teaching strategy, chapter 26, number 1.

TS26:4 Have students look at menus collected from a variety of restaurants to determine the types of pastries served and what role they fill in each menu. KEY QUESTIONS: Which pastries are served most often in restaurants? Why do you think these pastries are offered in restaurants? Which pastries are served hot? Which pastries are served cold?

CONVENIENCE PASTRY PRODUCTS

TS26:5 Have students review the list of pastry products they compiled in TS26:2. Ask them to indicate which are convenience products. Lead a class discussion on the lists and be certain the products indicated are convenience products. Contact a local food broker to determine the variety and prices of institutional convenience pastry products available. KEY QUESTION: How do institutional convenience products differ from products found at the supermarket?

TS26:6 Have students survey restaurants in the local area to determine which ones use convenience pastry products. Ask what products are purchased "ready-to-serve" and what products are made in the kitchen. Have students report and discuss findings in class.

TYPES OF PASTRY DOUGH

TS26:7 Lead a class discussion on the three main types of pastry dough including pie crust, puff pastry, and choux pastry. KEY QUESTIONS: What kinds of ingredients can be used for various kinds of pie crusts? What products are made from puff pastry? Which type of pastry creates a hollow shell when cooked? What desserts are made from choux pastry?

TS26:8 Set up an exhibit of pastries from a bakery. Label each type A, B, C, etc. Have students write the letters on a piece of paper and the names of each type pastry beside the matching letter. Discuss the answers after everyone finishes.

PREPARING PASTRY DOUGH

TS26:9 Lead a class discussion on ingredients used in the preparation of pastry including different types of flours, fats, salt, water, eggs, and flavorings. KEY QUESTIONS: Which types of pastry contain eggs? What is pastry flour? What type of pastry is best made with pastry flour? Which kind of flour produces the highest gluten content?

TS26:10 Instruct students to make gluten balls by mixing strong bread flour with water to a very stiff dough and kneading for five minutes. Have them put a little in their mouths and work it with their tongues. After a few minutes the starch will dissolve and the gluten can be felt. Ask students to describe how it feels. Repeat the experiment with a pastry flour or with all-purpose and cake flour. Have students compare the feel of the gluten in each type of flour.

TS26:11 Use Teaching Aid 125, Commercial Pie Crusts. Lead a class discussion on the proportion of shortening to the amount of flour in each recipe. KEY QUESTION: Why do some types of flour require a larger proportion of shortening to produce a tender, flaky crust?

TS26:12 Show students an audiovisual on preparing pastry. Have students note the following points: importance of accuracy in measuring, methods for blending the shortening and flour, the pastry attachment for the commercial mixer, length of mixing time, importance of measuring the liquid accurately, and methods for handling, resting, rolling, and panning the pastry.

TS26:13 Demonstrate preparing and rolling out pastry. Before rolling out the pastry, add more shortening to part of the dough. Show techniques to prevent dough from sticking to the pastry cloth or rolling pin. Bake the dough in strips. Let students examine and taste the two different pie crusts. KEY QUESTIONS: Which pie crust was the most tender? What effect does adding more shortening have on the pastry crust?

TS26:14 Have students prepare pastry for fried pies. Instruct them to do the following: Roll the dough out into a rectangle on a marked dough board or pastry sheet and cut into 4" squares. Spoon on canned fruit filling. Fold dough into a triangle over the filling and seal by moistening the lower edge with water. Roll with a pastry crimper or use the tines of a fork to crimp edges together. *Do not* prick or cut to ventilate, because the filling will seep out and cause the fat to burn. Fry and drain pies. Evaluate the crust for flakiness and tenderness. Extra pies could be sold to teachers or students to recover costs.

TS26:15 Invite a baker to demonstrate the preparation of choux and puff pastry. Ask students to review information on both types of pastry dough and to prepare questions for the speaker prior to the class.

TS26:16 Have students use a commercial mix to prepare puff pastry for Danish, following the directions on the mix. Assembly line methods may be used, if desired, for rolling out the dough, adding butter, and rerolling. Have students fill pastries with a prepared filling, bake, and frost. The pastries may be sold at a "coffee shop" for teachers.

TS26:17 Let students advertise a "Pie Kitchen Sale" and take orders for both single and double crust pies. Use the assembly line method for producing the pies by assigning three students to each group making single crust pies and four students to each group making double crust pies. Use convenience pie fillings.

TS26:18 Lead a class discussion on other techniques for quantity pie production, using Teaching Aid 126, Quantity Pie Production, for emphasis. KEY QUESTIONS: What would be the advantage of using a pie presser? Why do some bakers prefer the double-panning method for cooking pie crust?

TYPES OF PASTRY FILLINGS

TS26:19 Lead a class discussion on types of pie fillings including fruit, cream, chiffon, custard, and specialty fillings such as ice cream. Have students name examples of each type of pie filling. KEY QUESTIONS: Which type of fillings are usually baked in the pie crust? Which types use a double crust? Which type of filling is usually served frozen?

PREPARING PASTRY FILLINGS

TS26:20 Demonstrate the use of waxy maize in thickening fruit fillings by the hot-juice method and the use of instant starch in thickening fruit fillings by the cold-juice method. KEY QUESTIONS: Why is the old-fashioned method of preparing fruit fillings seldom used in food service? What form of fruit is most often used in food service? Why?

TS26:21 Demonstrate the preparation of cream and custard type pie fillings for the class. Demonstrate chiffon fillings that can be made by using cream pie fillings and folding in egg whites or whipped cream.

TS26:22 Divide the class into groups, and have each group select a type of pie to prepare. Provide two or three selections of canned fruit and cream type fillings plus egg whites or whipping cream for making chiffon pies. After pies are baked and cooled, cut and evaluate the appearance. Have students prepare extra slices on paper dessert plates covered with plastic wrap for sale to teachers or students.

TS26:23 Have students work in groups to prepare tarts filled with a custard filling such as pumpkin, egg custard, or pecan. After tarts are baked, have a panel of teachers evaluate the pies for appearance, texture, and taste. A small award may be presented to the group receiving the most evaluation points. Any extra tarts can be packaged and sold to recover costs for the lab.

TYPES OF TOPPINGS

TS26:24 Lead a class discussion on the kinds of toppings that can be used on pies. Have students name as many types as possible. Add to the list if necessary. Lead a class discussion on the purpose that each type of topping serves.

TS26:25 Set up a display of food service convenience products that are used for pastry toppings. Obtain price information, and have students figure the cost per serving of adding the toppings.

PREPARING PASTRY TOPPINGS

TS26:26 Demonstrate the preparation of meringue from dried egg whites. Point out the mixer attachment used and the special precautions to prevent oil or grease from coming in contact with egg whites. Cook the meringue. Have students examine the appearance and texture and evaluate the taste.

TS26:27 Demonstrate the preparation of meringue from fresh egg whites. Point out that room temperature egg whites produce more volume and that meringue should be fluffy, thick, smooth, and glossy. Cook the meringue and have students compare the appearance, texture, and taste of this meringue to the same characteristics of the meringue made from dried egg whites.

TS26:28 Have students work in small groups to practice whipping cream to the correct consistency for use as a topping. KEY QUESTIONS: When should sugar and flavorings be added? What happens if the cream is whipped too long? What is the result if the cream is not whipped long enough?

HOLDING AND STORING PASTRIES AND PIES

TS26:29 Lead a class discussion on proper storage techniques for pastries. KEY QUESTIONS: If pies are to be frozen, should they be baked first or frozen before baking? How long can a pie be kept in the freezer? What type of wrapping should be used on pies to be frozen? Which pastries should be kept in the refrigerator until serving time? How long can pies be safely kept in the refrigerator? If a serving situation requires that a pie be held without refrigeration for several hours, which type of pie would be the safest?

TS26:30 Provide some examples of pies that have been frozen incorrectly. For example, one pie might have been improperly wrapped and have freezer burn, and another might have been frozen too long and have absorbed odors. Allow students to examine and compare the pies. Demonstrate proper wrapping materials and techniques for freezing pastries.

GARNISHING AND SERVING PASTRY PRODUCTS

TS26:31 Lead a class discussion on garnishes that are appropriate for fruit and custard pies. KEY QUESTIONS: Which garnish is appropriate for pie served either warm or cold? Which garnishes are usually only served with fruit pies? Which type of pie is usually served ungarnished?

TS26:32 Invite a utility company home economist or food service industry representative to demonstrate making garnishes, especially the making of chocolate leaves. In the lab, let students practice the techniques shown.

27

Basic Service Skills

COMPETENCIES TO DEVELOP

- Welcome guests and oversee customer comfort.
- Handle customer complaints.
- Present menus, answer questions, encourage purchase of additional menu items, and take food order following prescribed methods.

OBJECTIVES TO ACHIEVE

- Identify personal skills needed by service personnel.
- Identify common areas of conflict among food service workers and appropriate ways to resolve the conflicts.
- Describe factors affecting customer responses.
- Identify types of customers and their characteristics.
- Describe customers who present special problems to service personnel.
- Outline ways to please customers.
- Identify types of promotional materials and displays used in food service.
- Describe menus used in food service.
- Outline salesmanship techniques effective in food service.
- Summarize methods for managing serving responsibilities.

ASSIGNMENT

- Read Chapter 27 in the *Food Production, Management, and Services Reference Book.*

PERSONAL SKILLS FOR SERVICE PERSONNEL

TS27:1* Show students an audiovisual or transparencies which point out employee characteristics that are important for customer satisfaction. Lead a class discussion on information covered. KEY QUESTIONS: What characteristics are pointed out as being important for an employee? What special courtesies can contribute to customer satisfaction? Why is it important to get along with other employees?

TS27:2 Have students listen to a panel of restaurant managers or employers discuss employee characteristics which are desirable. KEY QUESTIONS: How should a customer be greeted? What characteristics can the employee display which will contribute to customer satisfaction? How can courtesy be extended to a customer? Lead a class discussion on job ethics, attitudes, and communication skills.

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* TS 27:1 indicates teaching strategy, chapter 27, number 1.

TS27:3 Have students use Teaching Aid 127, Self-Evaluation Checklist for Food Service and Employees, to rate themselves on desirable employee characteristics for meeting the public. Ask students to write out a plan for self-improvement based on the evaluation.

TS27:4 Ask students to visit a food service establishment outside of class to observe the host, hostess, waiter, and waitress. Have students note the tasks performed by each employee. Instruct students to write their observations to discuss in class. KEY QUESTIONS: What special techniques were used to make the customers feel comfortable and welcome? Which employee is responsible for customer satisfaction?

TS27:5 Have students draw slips of paper from a container on which desirable employee characteristics have been written. Ask the students to explain why the characteristic they have drawn is important. Words such as the following might be used:

cooperative
courteous
loyal
friendly
sincere
punctual
adaptable
patient
cheerful
tactful
self-disciplined
polite
dependable
enthusiastic
thoughtful
respectful
neat in appearance

Ask students to add to the list other words which portray desirable characteristics.

CO-WORKER COOPERATION

TS27:6 Lead a class discussion on areas of responsibility in food service that may create conflicts among co-workers. Include in the discussion the necessity for being cooperative with co-workers, doing one's share of cleanup work and preparation for the next shift, picking up orders in turn, and handling tips fairly and honestly. KEY QUESTIONS: How will customers react if they are aware of disagreements and conflict between restaurant personnel? What are some effective ways to settle disagreements or conflicts between co-workers?

TS27:7 Have students who have worked in food service share actual situations that have created conflict among employees or give case situations from personal observations for the students to discuss. Ask students for possible solutions, then discuss which solution would solve the problem with the least conflict.

CUSTOMER RESPONSES

TS27:8 Lead a class discussion on the situations and factors that may cause certain customer responses. KEY QUESTIONS: Does the customer's reason for eating out influence satisfaction or dissatisfaction with food and service? What factors influence food choices and habits?

TS27:9 Have students work in small cooperative learning groups to write and role play situations involving employees meeting the public. Have them display desirable employee characteristics in the situations.

TYPES OF CUSTOMERS

TS27:10 Have students listen to a panel of food service managers or employees discuss difficult situations which may occur in a food service establishment. KEY QUESTIONS: What difficult situations may occur with customers in a food service establishment? How can such situations be handled? What problems might occur with customers who are children, elderly, blind, ill, in wheelchairs, noisy, angry, early, and late?

TS27:11 Lead a class discussion on different types of customers and suggest ways of resolving situations so that the customer is happy. Have students draw slips of paper from a container on which the following customer characteristics have been written. Lead students to discuss these characteristics:

- indecisive guest
- young guest
- elderly guest
- guest who is blind
- physically handicapped guest
- ill guest
- intoxicated guest
- dieting guest
- noisy guest
- angry guest
- complaining guest
- joking or overfamiliar guest

TS27:12 Use Teaching Aid 128, Problem Situation Skits. Have students read the problems and role play the problem situations. Lead students to discuss appropriate solutions for the situations. If possible, videotape the role play for playback and discussion.

TS27:13 Describe to students appropriate procedures for handling complaints. Ask students to explain the statement: "The guest may not always be right, but the guest is never wrong." KEY QUESTIONS: Why should the host or hostess never argue with a guest? Why should the customer be approached in a friendly spirit and not allowed to be put on the defensive?

PLEASING CUSTOMERS

TS27:14 Use Teaching Aids 129a, The Happy Customer, and 129b, The Happy Customer (Answer Sheet), to encourage practice in handling situations effectively. Discuss other solutions that might be equally effective in keeping the customer happy.

TS27:15 Describe and lead a class discussion on the proper procedures for the host or hostess to use in welcoming the guest, determining the number of people to be seated, and escorting guests to their table. KEY QUESTIONS: Why should the host or hostess remember the names of frequent guests? How should the host or hostess handle the problem of many guests waiting for a table? Where should elderly persons or persons in wheelchairs be seated? Why should the host or hostess remember seating preferences of frequent guests? When does the host or hostess present the menu?

TS27:16 Describe the procedure used by the host or hostess for the departing guest. KEY QUESTIONS: When should guests be assisted with wraps? Why should the host or hostess express the hope that the service is satisfactory and that the guests will come again? Why is it important to offer the guests a pleasant good-bye?

TS27:17 Have students work in pairs to discuss the following questions: Why should the host or hostess acknowledge a mistake promptly? Why should the host or hostess express sincere regret for the occurrence? Why should the host or hostess offer to exchange or substitute food which is unsatisfactory? Why should the host or hostess report difficult and unreasonable complaints to the manager for settlement? Why should the host report all serious complaints and those involving business policy and regulations to the management? Let each group share their answers to the class. Lead a class discussion and correct any misinformation. Note the importance of employees knowing the policies of their individual food service establishments in situations such as those described.

TS27:18 Have students role play the many small gestures which make dining out a pleasure, and have other students identify each gesture. Some examples include:

- Assist customers with packages and wraps.
- Provide high chairs, bibs, and a cookie or cracker for young children.
- Bring a newspaper to a person who is eating alone or waiting for the arrival of a friend.
- Correct any window glare or draft to ensure your guests' comfort.
- Describe menu items and answer questions cheerfully when asked.
- Provide prompt service.
- Meet special requests, if possible.
- Use good manners at all times.

DISPLAYS IN FOOD SERVICE

TS27:19 Lead a class discussion on various promotional materials and displays used in food service. KEY QUESTIONS: How might the menu promote sales? Would a display of the various cuts of meat be a good promotional display? Could a display or cart of desserts be used to increase sales of dessert items?

MENUS USED IN FOOD SERVICE

TS27:20 Have students differentiate between an a la carte and a table d'hote menu. KEY QUESTIONS: What is the major difference between a la carte and table d'hote? What type of menu is used at your favorite restaurant?

TS27:21 Ask students to look at menus from several different food service establishments. Have them identify the type of menu (a la carte or table d'hote), indicate the descriptive words, and compare the prices. Ask students which menu would indicate a restaurant appropriate for a student? an office worker? a shopper? a patient? someone who is entertaining a client?

TS27:22 Give students a list of menu terms and food terms that the host, hostess, waiter, and waitress should know. Provide a separate list of the definitions. Have students work in small groups to match the definitions with the terms. Lead a class discussion on the groups' answers.

TS27:23 Ask students to listen to a tape recording of the correct pronunciations of menu terms and food terms. Instruct students to pronounce each term correctly as it is given on the tape. Ask students to look at a list of the same terms as they are pronounced in unison by class and teacher. Have students pronounce the list of words individually for the teacher. Review and have students practice any words that are mispronounced.

TS27:24 Lead a class discussion on questions or interpretations of menus that might be requested by customers. Include questions such as the following: Which foods might already be prepared? Which foods would be cooked to order? What does "in season" mean, and when would those foods be available? How are daily specials and soup choices determined? Will this information be included on the menu or provided by the server?

TS27:25 Have students study a sample menu. Explain how each item is prepared and the approximate time required. Which items should be suggested to a customer who is in a hurry? Why should you tell a customer the time required to prepare an item if it takes a long time? Why might you suggest an appetizer to a customer who selects an entree requiring extra time for preparation?

SALES TECHNIQUES

TS27:26 Divide students into four groups. Let each group write descriptive words to "whet the guest's appetite." As each group reports to the class, lead students to compile a master list of appetizing, descriptive words which could be used to sell the menu.

TS27:27 Ask students to describe suggestive selling techniques. Lead a class discussion on direct suggestions regarding menu items that may increase the total bill. KEY QUESTION: Why are direct suggestions more effective than indirect suggestions?

TS27:28 Have students role play situations where the waiter or waitress is using suggestive selling techniques. Have students playing customers resist the sales techniques in some cases. Following the role play, ask students to evaluate the selling techniques that were used and offer suggestions for improvements.

MANAGING SERVING RESPONSIBILITIES

TS27:29 Lead a class discussion on the importance of organization for service personnel. Point out that time saved by making fewer trips during serving creates more time to serve other customers, which results in more tips for the server. Ask students to suggest ways that time and energy can be saved and list them on the board.

TS27:30 Demonstrate to students procedures for loading and carrying a tray. Have students practice loading and carrying trays using nonbreakable dishes or pans weighted with potatoes, dried beans, or canned goods. KEY QUESTIONS: Where should the heaviest items be placed? the lightest items? Why are full cups not placed on saucers? Why should hot dishes not touch cold dishes? Why should teapot and coffeepot spouts be turned in and away from plates of food? How is the tray picked up? Where should it be carried if it is large? if it is small? How is the tray brought down? Why is it important not to overload the tray?

TS27:31 Lead a class discussion on ways that service personnel can help reduce costs and save money in the food service establishment. KEY QUESTIONS: How can breakage of dishes and glassware be controlled? How can waste of food and supplies be reduced?

TS27:32 Use Teaching Aid 130, Sample Guest Check, to let students practice filling out guest checks properly. Point out that errors on guest checks can cut the restaurant's profit and create customer and employer dissatisfaction.

28

Sidework

COMPETENCIES TO DEVELOP

- Perform opening, closing, and sidework duties.
- Sort, count, and store utensils at designated places.
- Clear items from tables and remove soiled items from tables and stations.

OBJECTIVES TO ACHIEVE

- Identify persons responsible for sidework duties.
- Identify sidework routines typically performed before, after, and during serving hours.
- Describe a work station and a service stand.
- Identify the equipment and supplies used in sidework duties.
- Describe procedures for performing work area duties.

ASSIGNMENT

- Read Chapter 28 in the *Food Production, Management, and Services Reference Book.*

SIDEWORK RESPONSIBILITIES

TS28:1* Use Teaching Aid 131, Sidework and Bussing, and lead a class discussion on the definition and tasks involved in sidework. KEY QUESTIONS: When is this work done? Which employees do these tasks?

TS28:2 Lead a class discussion on which personnel are responsible for sidework. KEY QUESTIONS: If dining room attendants are not used by a restaurant, who does the sidework? If dining room attendants are employed, what are the sidework duties of the waiter or waitress?

TS28:3 Ask students to interview the owners or managers of various types of food service establishments. Have them describe the responsibilities of their employees regarding sidework. Is sidework responsibility similar in all types of restaurants? What experience is needed for employment? Have students compare their findings.

TS28:4 Divide students into small groups. Ask groups to simulate waiting tables in a restaurant. Have one group role play customers coming in for lunch. Have other groups of students set tables, take orders, serve food (pretend), and clear tables.

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* TS 28:1 indicates teaching strategy, chapter 28, number 1.

Rotate duties among all the groups for practice. KEY QUESTIONS: Which responsibilities should be shared? Would several people share these tasks in a restaurant, or would each task be performed by a different person?

SIDEWORK ROUTINES

Opening Duties

TS28:5 Have students make a list on the chalkboard of sidework duties that need to be done before opening the restaurant for service. KEY QUESTIONS: Are sidework duties different at different types of food service facilities? How?

TS28:6 Explain to students the importance of doing opening sidework. KEY QUESTIONS: Why is sidework important? What situations might develop if the sidework is not done? How could not doing sidework cause confusion? How could the waiter or waitress be slowed down if the sidework is not done? How might customers be affected if the service is slow?

TS28:7 Have students give examples of opening sidework tasks in the food service laboratory. After the students give examples, ask them to describe how each sidework task should be performed.

TS28:8 Have students divide into small groups and evaluate each other performing sidework duties in the laboratory. Lead a class discussion on the evaluations, and lead students to brainstorm ways to improve or save time.

TS28:9 Explain why it is important to correctly arrange supplies and equipment on a beverage cart. KEY QUESTIONS: Why is it important to have supplies and equipment in order? How can putting items on the beverage cart in a certain order and knowing exactly where everything belongs save you time and energy?

Closing Duties

TS28:10 Lead a class discussion on closing sidework duties. Have students list duties as they are discussed. Compare closing duties to opening duties. KEY QUESTIONS: Are the duties at opening and closing different? How?

TS28:11 Lead a class discussion on how closing sidework duties differ if it is the end of the day or only the end of a shift. KEY QUESTIONS: What jobs would be done only at the end of the day? Why?

During Serving Hours

TS28:12 Ask students to describe the sidework duties that should be performed during serving hours. Ask for volunteers to demonstrate one or more sidework duties. Be sure the demonstrations include restocking supplies, cleaning and filling condiment containers, cleaning ashtrays, removing dirty dishes from tables, cleaning and resetting the tables, and cleaning up spills from chairs and floors.

WORK STATION AND SERVICE STAND

TS28:13 Ask students to define work station, service stand, side stand, and booster stand. KEY QUESTIONS: What are the major differences between a side stand and a booster stand? Where is the work station located?

TS28:14 Have students work in small groups to create a checklist of items and amounts needed to supply a service stand. Use Teaching Aid 132, Supplies for Managing Service Stands, as a comparison with students' checklists. Lead a class discussion, noting items that may have been overlooked or added.

TS28:15 Explain to students the importance of doing inventory at the service stand. Demonstrate how to do inventory by counting all the supplies before service begins and after service ends. KEY QUESTIONS: Why should all supplies be stored in an organized manner? Why should a list of the necessary inventory be posted at each service stand?

TS28:16 Demonstrate to the students how to count and handle linens. Lead a class discussion on how to report tears and difficult stains to the laundry. KEY QUESTIONS: How can rotation of linens be achieved? Should napkins be used as service cloths? Why?

TS28:17 Divide the class into three groups to review and present information on sidework duties pertaining to service stand foods. Group One may report on garnishes, accompaniments, and condiments; Group Two may report on ice and beverages; and Group Three may report on breads and desserts.

EQUIPMENT AND SUPPLIES USED IN SIDEWORK

TS28:18 Lead a class discussion on the procedures for cleaning small equipment used in sidework duties. Demonstrate the proper cleaning methods for ice storage bins, tea containers, coffee urns, vacuum coffee makers, and pumps and dispensers. KEY QUESTIONS: Why is it essential to keep the coffee maker clean? Why should you avoid using metallic pots when preparing tea? When and how often should the equipment be cleaned?

TS28:19 Lead a class discussion on the inspection, handling, and storage of dishes, glassware, flatware, and service articles. KEY QUESTIONS: What should be done with cracked or chipped dishes or glassware? If glasses have water spots, how should they be polished? How is flatware polished?

WORK AREA DUTIES

TS28:20 Explain to students the importance of dusting before vacuuming. Treat a dust cloth and demonstrate how to dust. Let students practice by dusting the laboratory. Explain the importance of not scattering the dust.

TS28:21 Demonstrate the proper cleaning techniques for hard-surface floors. KEY QUESTIONS: What equipment should be used to clean hard-surfaced floors? In what directions should the strokes be made? How is the dirt collected and disposed?

TS28:22 Ask students to list surfaces that need to be cleaned daily and surfaces that need to be cleaned weekly and monthly. Be sure the lists include light fixtures, artificial and live plants, and flower arrangements. As students practice or perform each cleaning task, it can be crossed off the list.

TS28:23 Demonstrate proper use and care of the vacuum cleaner. Let each student practice using the vacuum. KEY QUESTIONS: When should the vacuum bag be changed? What type of stroke is used when vacuuming? How does an electric broom differ from a vacuum? How does a carpet sweeper differ from the electric broom and the vacuum? How and when is the carpet sweeper used? What advantages would a wet/dry vacuum have, especially for the kitchen?

29

Styles of Service

COMPETENCIES TO DEVELOP

- Utilize appropriate customer service procedures.

OBJECTIVES TO ACHIEVE

- Describe the styles of service.
- Describe examples of dining room service.
- Demonstrate correct procedures for setting tables.
- Identify types of table settings.

ASSIGNMENT

- Read Chapter 29 in the *Food Production, Management, and Services Reference Book.*

STYLES OF SERVICE

Counter Service

TS29:1* Define "counter service." Lead students to brainstorm places where food is served at a counter. List characteristics of counter service on the board as students name them.

TS29:2 Have students view an audiovisual or listen as a counter server describes procedures for serving from the time the customer sits down. KEY QUESTIONS: In what order are guests served? When is the check presented? Why is it important to keep the work area spotless?

TS29:3 Have students pretend to be counter workers. Let each student draw a slip of paper from a large bowl. Each slip lists food orders which need a cover set. Have the students set up the appropriate cover and explain why it is set that way. Examples of food orders include the following:

- pie and coffee
- luncheon salad, toast, coffee, and ice cream
- open-faced toasted cheese sandwich, French fries, milk, and cake
- bowl of soup, toast, coffee, and pudding
- omelet, toast, and coffee
- waffle, ham, orange juice, and hot tea

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* TS 29:1 indicates teaching strategy, chapter 29, number 1.

TS29:4 Have students role play procedures for counter service. Instruct them to include the following steps: greet guest, bring filled water glass and present menu, take order, call in the order, set cover, serve and remove each course, clean counter after main course, place check face down at guest's left, and thank the guest.

Trayline Service

TS29:5 Ask students to observe procedures used for serving in the school or another cafeteria. KEY QUESTIONS: What personnel are required? What are the duties of cafeteria serving personnel? the supply person? food checkers? bus persons?

TS29:6 Set up the food service lab for cafeteria service for several meals. Rotate jobs until everyone has served, supplied the counter, been a food checker, and bussed tables.

Seated Service

TS29:7 Use Teaching Aid 133, Basic Rules for Table Service. Lead a class discussion on rules, and lead students to explain reasons for observing these rules.

TS29:8 Have students review information on the types of seated service used in restaurants and dining rooms. KEY QUESTIONS: Which type of service is identified as plate service? Which type of service uses a cart for serving food? Which type of service is the most formal and also requires the most personnel?

TS29:9 Have students view slides of different types of service used by restaurants. KEY QUESTIONS: What differences can you see in placement of table appointments in various restaurants? Can you tell by the table appointments what the type of service is?

American Service

TS29:10 Explain American service to the students. KEY QUESTIONS: When would this type of service be used? What are the advantages of American service? What are the disadvantages? Why is American service defined as plate service? What is the general rule of American style serving? From which side is the food served? From which side are beverages served? How are soiled dishes removed?

TS29:11 Demonstrate to the students the correct placement of table appointments for a cover for American service. Give the name and purpose of each table appointment.

French Service

TS29:12 Explain French service to the students. KEY QUESTIONS: Why is French service called cart service? How many servers are involved in French service? How is food brought to the table? What are the advantages of French service? What are the disadvantages? What is the general rule of French service? How is a finger bowl used? From which side of the guest is the food served? Where are the butter, bread, and salad plates placed? When is the table cleared?

TS29:13 Ask students to set up a table with the correct appointments for using French service. Have students give the name and purpose of each table appointment. KEY QUESTIONS: Where is the hors d'oeuvre plate placed? napkin? dinner fork? dinner knife? soup spoon? water glass? wine glass? Since coffee is not served during dinner, where is the coffee spoon placed? When are finger bowls placed on the table? Students may refer to the diagram on page 379 of the Reference Book.

Russian Service

TS29:14 Explain Russian service to the students. KEY QUESTIONS: What are the advantages of Russian service as compared to French service? What are the disadvantages? How is food transferred from the silver serving platter to the guest's plate? Why is the food served from the left? At what seat does the service begin? In which direction does the service proceed?

English Service

TS29:15 Explain English style service. Have students role play English service in groups of four or six. One student should be the host and one the hostess. KEY QUESTIONS: How is family service similar to English service? How many servers are needed for English service? What foods are served by the hostess?

Buffet Service

TS29:16 Explain buffet service to the students. Lead a class discussion on the major differences between a regular buffet, a French buffet, and a smorgasbord. KEY QUESTIONS: How are food, dishes, and flatware arranged? How is the dessert served? What are the advantages of buffet service? What are the disadvantages?

TS29:17 Have students watch a demonstration on the correct table setup for buffet service. Lead a class discussion on the arrangement of plates, flatware, napkins, and food items. KEY QUESTIONS: If flatware and napkins are not placed on the buffet table, where are they located? What jobs may be performed by servers during buffet service?

Banquet Service

TS29:18 Explain how banquet service differs from buffet service. Include the number of people being served, set menu, and the number of servers in the discussion. KEY QUESTIONS: Which two styles of service are combined to form banquet service? Which foods are placed on the tables before guests arrive?

TS29:19 Set up one example of tableware for each of the different types of table service. Have students identify the type of service by the placement of the tableware. Review the number of servers required for each type of table service. NOTE: This activity may be used for evaluation or review.

TABLE SETTINGS

TS29:20 Ask students to identify items needed to set the table. Divide the class into groups, and instruct each group to set a table for a specified meal and a particular type of service. Have each group explain their table setting to the other students. Correct and explain any misinformation the students give in their reports to the class.

Covering the Table

TS29:21 Demonstrate the quick and efficient method of placing a tablecloth on the table as described on page 376 of the Reference Book. KEY QUESTIONS: Why is it important to center the cloth on the table? How are ashtrays and other objects transferred to the clean cloth?

TS29:22 Lead a class discussion on where place mats are placed in relation to the edge of the table. Ask students to demonstrate the correct alignment of different sizes and shapes of place mats, including paper mats.

Setting the Table

TS29:23 Have students write out definitions of the term "cover." Lead a class discussion on the definitions. Also discuss the importance of the cover being complete and neatly arranged.

TS29:24 Have students look at examples of covers that have been set up for various meals. Point to various items in the cover. Have students identify each item and tell whether or not it is located in the correct place. NOTE: Include some distractors in the examples.

TS29:25 Explain to students that the traditional placement of items may vary from restaurant to restaurant and that it is important to carefully follow directions given by the employer.

Napkins

TS29:26 Use Teaching Aid 134, Simple Napkin Folds. Folding cloth napkins may be part of the sidework duties between serving hours in some restaurants. Provide cloth napkins for students to practice the different types of folds. Explain the importance of using only spotlessly clean napkins and treating all linens with care. KEY QUESTIONS: Which napkin folds were the easiest? Which would be the most decorative?

TS29:27 Lead a class discussion on the correct placement of napkins on the tables. Again, it is the management's choice in each restaurant, and employees should follow instructions. KEY QUESTIONS: What are some ways that napkins are presented in trayline service? If the napkin is folded flat and put on the left of the plate, where should the folded edge be?

Flatware

TS29:28 Demonstrate and lead a class discussion on the correct placement of flatware. KEY QUESTIONS: On which side of the plate are forks placed? In which direction is the cutting edge of the knife placed? Where should spoons be placed? If more than one spoon is to used, which should be on the outside? How far from the edge of the table is the flatware placed?

TS29:29 Assemble a variety of flatware place settings. For example, the place settings might include the following:

- one knife, one fork, and one teaspoon
- one knife, two forks, and one teaspoon
- one knife, two forks, and two spoons

Have students select a place setting and practice putting the flatware in the correct position.

Glassware

TS29:30 Lead a class discussion on the placement of glassware on tables. Explain that glassware may be placed in order of use or in order by size. KEY QUESTIONS: Where should a water glass be placed? Where should the iced tea glass be placed?

Dishes

TS29:31 Demonstrate the various placements of dishes according to style of service. KEY QUESTIONS: If a dessert plate is included on a banquet table, where should it be placed? Where should the salad plate be placed? In which style of service would a dinner plate be placed in the cover when setting up before guests arrive?

Accessories and Condiments

TS29:32 Have students review the list of accessories and condiments included on page 378 of the Reference Book. Ask them to list in three columns the items appropriate for breakfast, lunch, and dinner service. Lead a class discussion on the lists. KEY QUESTIONS: Which items are included in all three lists? Which are only in one list? When should candles and flowers be replaced?

TS29:33 Divide the class into small groups. Instruct students to set up tables for different styles of service. Have students evaluate the tables set up by other groups. KEY QUESTIONS: Are all table appointments in their proper places? Are all necessary appointments included on the table? If not, what changes need to be made?

30

Table Service

COMPETENCIES TO DEVELOP

- Take dining reservations and determine seating needs, using space and personnel effectively.
- Welcome guests and oversee customer comfort.
- Present menus, answer questions, encourage purchase of additional menu items, and take food orders following prescribed methods.
- Relay orders to kitchen or serving counter.
- Pick up orders in kitchen, and verify by scanning filled plates and trays.
- Serve food and beverages in prescribed manner.
- Provide appropriate accompaniments with each course.

OBJECTIVES TO ACHIEVE

- Describe procedures for assigning guests to tables.
- Summarize procedures for greeting and seating guests.
- Describe procedures for presenting menus to guests.
- Outline procedures for writing orders.
- Describe procedures for placing orders in the kitchen.
- Cite steps in picking up, assembling, and inspecting orders.
- List the order of service for breakfast, lunch, and dinner.
- Describe procedures for serving food and beverages.
- Identify steps for removing dishes from the table.

ASSIGNMENT

- Read Chapter 30 in the *Food Production, Management, and Services Reference Book.*

WELCOMING AND SEATING GUESTS

TS30:1* Have students observe a floor plan of a restaurant and identify the different work stations. KEY QUESTIONS: Who has the responsibility for keeping the work load equal between work stations? What might happen if the work load is not kept equal? Ask students to describe appropriate seating for the following customers:

- an individual or party who appear to be noisy and disruptive
- a family with a small child who requires a highchair
- a blind guest
- a guest in a wheelchair
- a party including smokers

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* TS 30:1 indicates teaching strategy, chapter 30, number 1.

TS30:2 Lead a class discussion on the job titles and responsibilities of the maitre d'hotel, headwaiter or headwaitress, and host or hostess. KEY QUESTIONS: What should the host or hostess do if the party does not have reservations? How might the size of the party affect where the greeter seats the guests? Should help with wraps and parcels be offered? Who should be offered the first seat in a party of two? in a larger party?

TS30:3 Have students practice and discuss correct techniques for greeting and seating guests as outlined on page 383 of the Reference Book. Students may take turns playing the various roles. "Guests" should be grouped in different sized parties to present a variety of possibilities for the practice session. KEY QUESTIONS: What should be done if guests cannot be seated immediately? What assistance should be given when seating customers on sofa seats at a wall table?

PRESENTING MENUS

TS30:4 Lead a class discussion on the presentation of the menu to guests. KEY QUESTIONS: To whom should the first menu be presented? From which side are menus presented? When presenting menus to a large party, where should you start? In which direction should you proceed? What tasks should be performed while guests study the menu? What information should be provided?

TS30:5 Demonstrate and lead a class discussion with students on the use of suggestive selling techniques when presenting the menu to guests. Use some helpful phrases like the following:

- "I just served the prime rib at another table and it looks delicious."
- "The shrimp scampi is one of our specialities."
- "A lot of people have enjoyed the taco salad."
- "Our regular guests order gumbo frequently."
- "I had the ham quiche for lunch, and it was delicious."

TS30:6 Have students role play explaining items on the menu. Have them use descriptive words to increase a customer's appetite, the size of the check, and the tip. The following descriptive terms might be helpful:

- "piping hot"
- "green"
- "cold"
- "plump"
- "fresh"
- "chilled"
- "iced"
- "crisp"
- "young"
- "tender"

WRITING ORDERS

TS30:7 Divide the class into groups to role play the correct procedures for taking orders. As each group presents their role play, lead students to evaluate the techniques demonstrated and suggest ways to improve the procedures. Lead a class discussion on procedures for taking orders. KEY QUESTIONS: How does the employee know that the customer is ready to order? How does the employee remember which order belongs to each person?

TS30:8 Have students list all the information needed on the guest check. Discuss the lists and be certain they include the following:

- date
- table number
- name of person taking order
- number in party
- locator code
- cooking instructions
- type of salad dressing
- type of bread
- sauce or condiments
- choice of vegetable

TS30:9 Duplicate copies of Teaching Aid 130, Sample Guest Check, or provide actual guest check pads for students to practice taking orders. Ask students to review the abbreviations included on pages 385-387 of the Reference Book. Have students practice taking orders (using abbreviations) from each other. Mix up the orders and have students draw one and interpret it for the class. NOTE: If students have trouble writing, list the menu items on the ticket so the student can check items the customer orders by number; a help for both poor readers and writers is to use numbered menu items so that customers order by number. Make it clear that to be employable as a waitperson, a student must possess sufficient reading and writing skills. Also point out that the method of taking food orders will vary between restaurants, and it is important to learn the method practiced at a specific establishment.

PLACING ORDERS

TS30:10 Provide students with sample orders. Ask students to summarize the orders before placing the order in the kitchen. Lead a class discussion on the summaries in class. KEY QUESTIONS: Which items on the order should be turned in to the kitchen? For which items is the waitperson usually responsible?

TS30:11 Lead a class discussion on the various methods that may be used for placing orders in the kitchen including computer, written, or oral. KEY QUESTIONS: What are the advantages of using the computer method of turning in orders? How are written orders kept in proper sequence? What are some common abbreviations used when calling out orders?

TS30:12 Have students practice placing orders in the kitchen. Following the practice, lead a class discussion on the methods used. KEY QUESTIONS: When placing written orders on a spindle, where are new orders placed? From which side are orders filled? Why is it important to keep orders in the same sequence? Where does the cook place the check when the order is complete?

TIMING ORDERS

TS30:13 Lead a class discussion on the importance of timing when serving food. Point out that the beverage, appetizer, and soup or salad are usually served before the entree. The order should be turned in so that the entree can be served promptly once the guest has finished the appetizer or salad. KEY QUESTIONS: How can servers estimate the amount of time it will take to cook the food? If the entree is not ready on time, what should the server do?

PICKING UP ORDERS

TS30:14 Invite some experienced waitpersons to speak to the class on placing, timing, and picking up orders. KEY QUESTIONS: How does the waitperson know when the order is ready? Which foods are picked up last? What is the best method for checking the order? When should serving equipment be collected?

TS30:15 Have students work with partners to demonstrate the correct procedure for picking up, assembling, and inspecting orders. NOTE: Stress that students need to know how long in advance to place an order to ensure the order will be ready in a reasonable time. KEY QUESTIONS: What types of accompaniments should be gathered while the order is being filled? When is the hot food picked up? Why is it important to check the orders before leaving the kitchen?

TS30:16 Have students observe as a server picks up an order. KEY QUESTIONS: Which items were served while the order was being prepared? Was picking up the order announced? How might the procedure differ in a larger or smaller establishment? How did the sequence used for picking up compare with the following?

1. Collect all serving equipment needed for food and accompaniments.
2. Pick up cold foods.
3. Pick up hot foods last.
4. Pick up hot plates and cold plates.

Does the server inspect the order? If so, when should the order be inspected?

TS30:17 Have students develop a checklist to be followed when inspecting an order. Lead a class discussion on the checklists. KEY QUESTIONS: Is the order complete? Is the order correct? Is the order prepared to the guest's specifications? Is it attractive? Is the server proud to serve it? What should the server do if the order is incorrect?

SERVING FOOD AND BEVERAGE

TS30:18 Have students view an audiovisual on the correct procedure for serving food. Lead a class discussion on the procedures shown in the audiovisual.

TS30:19 Ask students to study the general rules for serving food and beverages as outlined on pages 389-390 of the Reference Book. KEY QUESTIONS: Who should be served first in a party of six? Who is served first in a party of twelve? In what order are the other eleven persons served?

TS30:20 Have students observe a demonstration on procedures for serving food to customers seated in a booth. KEY QUESTIONS: Which guest is served first? How does the server stand when serving? Which hand is used for serving each side of the table?

TS30:21 Ask students to draw from a container a slip of paper having a specific serving task written on it. Have students demonstrate, or write, a description of the correct procedures for performing the task when serving guests.

TS30:22 Prepare a "question box" for questions relating to the order of service for breakfast, lunch, and dinner. Give students the opportunity to place questions in the box. Draw out questions for discussion.

Breakfast

TS30:23 Ask students to demonstrate the sequence of steps in serving breakfast by using empty dishes. Have some student "guests" seated at tables.

TS30:24 Lead a class discussion on breakfast customer profiles with students. KEY QUESTIONS: How is the breakfast customer different from customers at lunch or dinner? What is the first thing most customers want? What condiments are usually offered?

Lunch

TS30:25 Demonstrate the sequence of steps in serving lunch. Show the service of soup, salad, entree, bread, beverage, and dessert. Ask students to prompt and narrate the demonstration as it progresses.

TS30:26 Ask each student to list the correct sequence of steps for serving a quick lunch of soup and salad or a sandwich with a beverage. Compare and lead a class discussion on the lists.

Dinner

TS30:27 Show an audiovisual on formal dinner service. Stop the audiovisual at points where discussion might reinforce learning, then continue. Encourage students to ask questions both during and after the screening.

TS30:28 Lead a class discussion, and list on the chalkboard the general rules for formal dinner service. Ask students to review information from pages 392-393 of the Reference Book and determine if the list on the chalkboard is accurate and complete. Lead students to revise the rules if necessary.

REMOVING DISHES FROM THE TABLE

TS30:29 Use Teaching Aids 135a, Steps for Removing Dishes from Occupied Tables, and 135b, Clearing Dishes from a Vacant Table, to review steps for clearing and cleaning the table. KEY QUESTION: Why should tables be cleared and cleaned as quietly and as quickly as possible?

TS30:30 Demonstrate correct steps for clearing and cleaning the table. KEY QUESTIONS: When should plates be removed? How many dishes should be picked up at one time and taken to the kitchen? Why? How can trays and carts be used to save steps? How should glassware be picked up? How should plates be picked up? How should flatware be handled to prevent its dropping to the floor? Should dishes be scraped before they are stacked? Should large dishes be stacked on smaller dishes? Should glasses or cups be stacked inside one another? When and where should crumbs be wiped from the table? How is the table cleaned? Where should dirty dishes be taken?

TS30:31 Have students sit in a circle to take turns drawing and answering question cards. NOTE: Write questions from the preceding learning experience or other similar questions on index cards. Repeat until students can answer correctly and quickly.

TS30:32 Set a table to appear as it might at the end of a meal. Let students role play to practice removing plates using the procedure outlined by the teacher. Ask students who play the roles of guests to suggest ways to improve the removal of dishes.

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Counter and Self-Service

COMPETENCIES TO DEVELOP

- Welcome guests and oversee customer comfort.
- Present menus, answer questions, encourage purchase of additional menu items, and take food orders following prescribed methods.
- Relay orders to kitchen or serving counter.
- Pick up orders in kitchen, and verify by scanning filled plates and trays.
- Package take-out orders, and serve take-out customers.
- Serve food and beverages in prescribed manner.
- Provide appropriate accompaniments with each course.

OBJECTIVES TO ACHIEVE

- Identify the types of counter service and self-service.
- Describe procedures for preparing the facility for counter service and self-service.
- Describe procedures for taking and relaying orders.
- Identify food preparation tasks performed by counter service personnel.
- Summarize procedures for sanitizing the food service counter.
- Outline procedures for serving counter and self-service orders.
- Describe procedures for packaging take-out orders.

ASSIGNMENT

- Read Chapter 31 in the *Food Production, Management, and Services Reference Book.*

COUNTER AND SELF-SERVICE

TS31:1* Lead a class discussion on the various types of counter service and self-service food facilities. Ask students to define counter service, buffet service, cafeteria service, tray service, and automated self-service. KEY QUESTIONS: What are the major differences in the above types of service and formal, seated restaurant service? What are the advantages of counter service and self-service for the customer?

Counter Service

TS31:2 Lead a class discussion on the differences between table service and counter service. KEY QUESTIONS: What are the advantages of counter service for the customer? Is this style of service less expensive than table service? Why?

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* TS 31:1 indicates teaching strategy, chapter 31, number 1.

TS31:3 Take students on a tour of a restaurant with counter service if possible. Plan the tour during a slow time at the restaurant, and let students order something to drink. Have students observe the service. Ask students to prepare a brief written report on their observations. Lead a class discussion on the reports.

TS31:4 Set up a simulated counter service and have students practice preparing the counter for service, taking and relaying counter orders, preparing food for counter service, and serving food at the counter. Students may refer to pages 396-399 of the Reference Book for information.

TS31:5 Have students listen to taped interviews of servers or other counter employees describing the procedures for taking and placing a customer order. KEY QUESTIONS: How does the employee know when the customer is ready to order? How are orders recorded or relayed? How does the employee remember which order belongs to each person?

TS31:6 Have students view a diagram of a self-sufficient back bar. KEY QUESTIONS: What type of equipment is included in a self-sufficient back bar? What are some features of the self-sufficient back bar? Can the customer see the meals being prepared?

TS31:7 Demonstrate some counter food preparation responsibilities to the students. Show students how to dispense milk, juice, and soft drinks. Provide easy steps for students to follow when making coffee and tea. Lead a class discussion on other items of food that servers prepare at a self-sufficient back bar. KEY QUESTION: How might the establishment's policy affect the preparation of an item, the portion size, and how the item is to be served?

TS31:8 Have students take turns operating equipment ranging from mixers to toasters. Let students work with the different pieces of equipment to become thoroughly familiar with the equipment used in counter service.

Self-Service: Cafeteria

TS31:9 Arrange for the class to help prepare the school cafeteria for lunch service if scheduling permits. Demonstrate and help students to 1) polish and clean surface; 2) replenish supplies; 3) assemble condiments and pre-packaged food items; 4) prepare cold pans or table; 5) prepare steam tables and hot counters; 6) assemble adequate supply of dishes, flatware, and serving utensils; 7) prepare hot and cold beverage; and 8) arrange attractive displays of hot and cold foods. If scheduling prevents actual experience in preparing the cafeteria for lunch service, visit the cafeteria with the class when it is not in use and demonstrate the preparation jobs that take place in different areas.

TS31:10 Invite a cafeteria worker (not from school cafeteria) to speak to the class. KEY QUESTIONS: What type of duties are performed before serving hours? Is each employee assigned a certain job? Is there a special way the food is arranged? If so, how? Why should salads be arranged to contrast in color? How should desserts be grouped?

TS31:11 Demonstrate portioning and serving food as it would be done in a cafeteria. Include examples of salads, entrees, and vegetables. Explain how desserts are pre-portioned prior to serving hours. KEY QUESTIONS: Why is portioning so important? Why should food particles be wiped from the rims of plates before handing them to the customer? Why is it important for food to be attractively displayed?

TS31:12 Have students observe in a cafeteria where the customers serve themselves. KEY QUESTIONS: Do customers serve all items? Which items are usually served by the counter workers?

TS31:13 Assign each person one part on the serving line. Have each student explain to the rest of the class what the jobs would be for his or her assigned area.

TS31:14 Lead a class discussion on methods used in cafeterias to replenish food and supplies during serving hours. KEY QUESTIONS: Why should pans be kept filled? Should fresh food be put into pans with remaining food? Why?

TS31:15 Ask students to list the duties of dining room attendants in cafeterias. Lead a class discussion on the lists, and guide students to delete or add tasks if necessary.

TS31:16 Lead a class discussion on the duties associated with closing a cafeteria counter at the end of the serving period. KEY QUESTIONS: Why should food be properly stored? Why should all equipment and holders be emptied and cleaned?

TS31:17 On 3" x 5" cards, print various questions about cleaning the serving line. Have each student select a card, read the question, and answer it for the other classmates. NOTE: Make up questions with your serving line equipment in mind.

Self-Service: Buffet

TS31:18 Have students arrange a buffet serving line for a luncheon. KEY QUESTIONS: Where are the guest plates placed? What types of food are included on the buffet table? Can the guests walk around the table easily and serve themselves? How will beverages, bread and butter, and desserts be served? NOTE: This type of service may be used in a lab situation, or it may just be set up with empty, labeled dishes to give students practice.

Self-Service: Take-Out

TS31:19 Lead students to brainstorm foods featured by take-out services. KEY QUESTIONS: What makes take-out service so popular? Where are the take-out services usually located? Why? What type of people enjoy the facilities?

TS31:20 Instruct students to work in pairs to role play a situation where one student packages the other student's order. Have the student place the order in a disposable container such as a sack or box. KEY QUESTIONS: Should the customer be asked if he or she wants salt or any other condiments? What utensils are necessary? Should napkins be provided? Have students switch roles so each student has an opportunity to package the food.

TS31:21 Have students observe a drive-through facility where take-out orders are offered. Ask students to describe the procedures they see. KEY QUESTIONS: When was your order taken? Was your order repeated? How was your food packaged? Did you receive the necessary sauces? Was there a lid on your drink? Why? Lead students to discuss their observations and develop guidelines for serving customers at drive-through facilities.

Self-Service: Automated

TS31:22 Lead a class discussion on automated food service including vending machines and automats. KEY QUESTIONS: What types of food may be purchased from vending machines? Where are vending machines generally located? Where are automats located? Is the food offered by an automat different from the food offered in vending machines? Who prepares foods that are dispensed in vending machines? Are special safety precautions necessary? Why?

32 Other Types of Food Service

COMPETENCIES TO DEVELOP

- Set up rooms for catered parties.
- Serve food at customer's table, a seated banquet, or special occasion.
- Pack and transport food, beverages, utensils, and equipment.
- Maintain quality of transported food.
- Unload and deliver food and beverages.
- Serve food and beverages to guests or patients in their rooms.
- Check guests' or patients' needs and supply needed items.
- Pick up food carts, and empty trays from patients, guests, or customers.
- Pick up and return trays, dishes, utensils, and equipment to dishwashing area.
- Prepare artistic food displays for serving lines, buffets, soup and salad bars, and special events.

OBJECTIVES TO ACHIEVE

- Summarize procedures for setting up rooms for special occasions.
- Outline procedures for banquet service.
- Describe equipment and procedures used for packing and transporting food, utensils, and equipment.
- Summarize preparation and service techniques used in catering.
- Outline procedures for preparing, transporting, and serving orders for room service.
- Outline procedures for assembling patient trays.
- Describe procedures for delivering trays to patients.
- Describe opportunities for showmanship when preparing, decorating, and displaying food.

ASSIGNMENT

- Read Chapter 32 in the *Food Production, Management, and Services Reference Book.*

SETTING UP ROOMS FOR SPECIAL OCCASIONS

TS32:1* Lead a class discussion on factors that need to be considered when arranging tables for special events. These factors may include the following:

1. The type of function.
2. The number of guests.
3. Formal or informal service.
4. The amount of equipment and number of servers needed.
5. The shape of the room and any obstructions in it such as posts or pillars.
6. Whether a head table will be used and, if so, how many guests are to be seated there.

TS32:2 Ask students to review information on the various shapes in which long tables may be arranged. Have students work with paper cut to scale of tables and arrange the different shapes on floor plans of banquet rooms. Have them work out the best arrangement for parties of 20, 35, 50, and 100 persons in different sizes of rooms.

TS32:3 Have students work out table arrangements using folding tables with tops that adjust from square to round. Remind students that this type of table can also be used to create a half-round or oval shape. KEY QUESTIONS: Which shapes and arrangements of tables are the easiest and quickest to serve? In a hotel or restaurant, who would work out the seating and table arrangements for banquets? Who would be responsible for setting up the platform or dais for the head tables and arranging the banquet tables and chairs in the room?

TS32:4 Lead a class discussion on efficient methods of setting the tables for a very large banquet. KEY QUESTIONS: How should the tablecloths be placed to be certain they are straight and even? How many people would be needed to set the tables if each person placed only one item in each cover? What would be the advantage of using carts while setting the tables?

BANQUET SERVICE

TS32:5 Demonstrate how servers, on being signaled by the head waitperson or host or hostess, serve or clear each course at the same time. KEY QUESTIONS: Which table is served first? What is a floater? For what purpose are floaters used?

TS32:6 Describe to students the procedure for serving food in American style banquet service. Lead a class discussion on the differences compared to Russian style banquet service. KEY QUESTIONS: Which service has food presented on hot plates from the kitchen? Which service has food on large silver platters? Which service is more elaborate and formal? What other differences exist between the two styles of service?

CATERED SERVICE

TS32:7 Lead a class discussion on catering services. KEY QUESTIONS: What types of businesses provide catering services? How does catering differ from restaurant food service? What types of functions do caterers service? What items may be provided by the caterer in addition to the prepared food? Which styles of service are used by caterers?

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* TS 32:1 indicates teaching strategy, chapter 32, number 1.

TS32:8 Use Teaching Aid 136, Packing List, as a sample to acquaint students with the technique used by caterers to make certain all necessary equipment and supplies arrive at the service location for a scheduled event. Copies of actual forms might be obtained from a local caterer for comparison. KEY QUESTIONS: When should the list be rechecked? When should items be checked with the packing list? What should be done if items are returned used or broken? What happens if an item is missing? Who should the receive the complete packing list for a permanent record?

TS32:9 Demonstrate to students how to pack flatware. Follow these guidelines:

1. Place forks close together in a row with the tines of the forks facing the same direction (up or down).
2. Make a second row of forks with the tines in the same direction as those in the first row, but lay the tines of the forks on the handles of the forks in the first row.
3. Continue procedure for other rows of forks.
4. Pack spoons following the same procedure used for forks.
5. Pack hollow-handled knives close together in a row with the flat side of the handle down.
6. Reverse the handles of the knives in the second row so that the blades lie on the blades of the knives in the first row.
7. Continue to reverse rows as you pack knives.
8. Be sure to count and check all flatware for rusty or bent pieces as you are packing.

TS32:10 Have students examine a special insulated cabinet that is used for transporting food. KEY QUESTIONS: From what materials is the cabinet constructed? Why do drop handles make the cabinet easier to store and transport? When should food items be loaded? Why is it important to keep the cabinets at the correct temperatures? How should all dairy items be transported? Why? What should be done if a container leaks?

TS32:11 Invite a caterer to speak to students on special packing techniques for sandwiches and wedding cakes. KEY QUESTIONS: Why should sandwiches be packed loosely? How are the decorated tiers packed? When is the cake assembled?

PREPARATION AND SERVICE TECHNIQUES

TS32:12 Have students view an audiovisual that discusses the different services caterers provide. KEY QUESTIONS: Which type of service prepares food in the client's home? What type of service transports food to another location? Can a caterer provide services in a park or remote area? If so, how is this possible?

TS32:13 Divide the class into cooperative learning groups to work on descriptions of the following types of catering:

a) accommodator service

b) on-premises catering
c) off-premises catering
d) mobile unit catering

Have each group describe the proper procedures for their assigned type of catering.

TS32:14 Have students list special occasions that might need catering services and explain how these events might benefit from a catering service. NOTE: Examples include weddings, club meetings, or business meetings.

TRAY SERVICE

TS32:15 Lead a class discussion on the various places where tray service is usually provided. KEY QUESTIONS: Why is this type service offered? What terms are used to describe tray service in the different places?

Room Service

TS32:16 Demonstrate the proper assembly of a tray for room service in a hotel/motel situation. KEY QUESTIONS: Who is responsible for assembling the trays for room service? How are hot foods kept hot? When is the check presented to the guest? When should the tray be picked up for return to the kitchen?

TS32:17 Have students develop a list of rules for room service. Examples include the following:

1. Treat guests or customers with same friendly, courteous manner they would receive in the dining room.
2. Be sure all accessories are on the tray, especially salt, pepper, sugar, cream, butter, and sauces.
3. Deliver hot foods hot.
4. Deliver the order promptly.

TS32:18 Have students take room service orders from teachers or other school personnel over the phone. Instruct them to assemble trays and serve meals to each room or office using room service procedures. NOTE: Flowers might be added for a special touch. Rotate duties until all class members have performed room service procedures. Ask students to prepare a checklist on room service procedures. Use the checklist as a self-evaluation of performance.

Hospital Room Service

TS32:19 Assign students to work on a simulated assembly line to handle specific food items or specific jobs. Have them assemble patient trays for hospital room service. Students may place empty dishes of the proper sizes on the tray if it is not feasible to use actual food. Have students study the diagrams on Teaching Aid 137, Place Settings for Tray Service, to determine the correct placement for each item. NOTE: Stress the importance of the workers reading the individual diet orders on menus carefully. KEY QUESTIONS: What is the purpose of having a "food checker"? What might happen if a diabetic patient received a regular diet tray?

TS32:20 Lead a class discussion on items that should be placed on a patient's tray in addition to food. Teaching Aid 138, Setting Up the Tray, will aid in the discussion. KEY QUESTIONS: What items should be placed on the tray regardless of the tray assembly method used? What information should be included on the patient's menu card?

TS32:21 Have students view Teaching Aid 139, Standards for Tray Service. Then ask them to prepare and present a tray that is attractive, palatable, and would meet the expectations of patients. Ask students to point out the specific characteristics that make this tray meet certain standards.

TS32:22 From the following menu, have students draw a diagram of a serving tray and use the number preceding the food item to show it on the diagram:

1. tomato juice
2. roast pork
3. gravy
4. baked sweet potato
5. green beans
6. coleslaw
7. rolls
8. margarine
9. caramel custard
10. coffee

The tray should contain several items not listed in the menu. Have the students add these items to the list, number the items, and show them on the diagram by number.

Delivering Patient Trays

TS32:23 Divide the class into two groups. Have groups take turns placing trays in a hospital cart or banquet cart. If carts are not available use Teaching Aid 48, Carts (see TS9:36, page 36), to show students what the carts look like.

TS32:24 Have students role play appropriate reactions when serving the following types of patients:

a) one who feels lonely, frightened, or neglected
b) one who uses angry tones when speaking
c) one who does not like the food and does not want to eat
d) one who is isolated because of a communicable disease

Lead a class discussion on the role plays, and have observers make suggestions for improving the interactions between server and patient.

Car and Airplane Service

TS32:25 Lead a class discussion on car and airplane tray service. KEY QUESTIONS: How are orders taken in car service? How is the order delivered to the car? How is the food kept at proper serving temperatures in an airplane? Who serves the food? How do airlines accommodate passengers who are on special diets?

FOOD SHOWMANSHIP

TS32:26 Have an experienced server demonstrate her or his professional skills for cooking in the dining room. NOTE: Often two are required – one to serve and setup, and the other to do the preparation. Have the server demonstrate a flaming technique. KEY

QUESTIONS: What kind of training was needed to obtain the necessary skills for this type of service? What basic equipment is needed? What are some examples of foods which might be prepared in the dining room?

TS32:27 Have students look through magazines to find pictures of food decorations that add to the appeal of the food. Display these pictures around the room.

TS32:28 Have students work in small groups to create edible centerpieces. Award prizes for the most appealing centerpiece. Use the centerpieces for refreshments at the next FHA/HERO meeting.

SERVING SPECIAL FOODS

Coffee and Tea

TS32:29 Demonstrate for students the proper way to serve coffee or tea from a silver service. Allow students to pour coffee or tea for each other as practice.

Punch

TS32:30 Have students view a display of the proper equipment used to serve punch. Demonstrate, using the equipment, how to serve punch using a ladle. Also show students the proper way to pick up and hold a cup to be filled. Demonstrate how to refill the bowl without carrying it back to the kitchen. Have students practice performing the techniques demonstrated.

Cakes

TS32:31 Have students review information on cutting and serving cakes in Chapter 25, page 326, of the Reference Book. Provide a layer cake and a sheet cake for students to cut into specified numbers or servings.

Hors d'oeuvres and Canapes

TS32:32 Lead a class discussion on the proper way to serve hors d'oeuvres and canapes. KEY QUESTIONS: Why should duplicate trays of each appetizer be prepared in the beginning? Should all the trays be the same size and shape? When should a tray be replaced?

33 Money Handling

COMPETENCIES TO DEVELOP

- Itemize and total the price of each order.
- Present check to customer and accept payments or refer customers to cashier.
- Handle payments (cash, checks, credit cards), operate a cash register, make change, and write receipts.
- Prepare cash drawer.
- Prove cash, and prepare deposits.
- Give tips to proper waiters/waitresses.
- Display, sell, order, and restock counter items.

OBJECTIVES TO ACHIEVE

- Describe the procedure for computing the check.
- Describe the procedures for presenting checks to customers.
- Cite procedures for accepting personal checks and credit cards.
- Summarize the procedure for making change.
- Cite procedures for setting up and using a cash register.
- Summarize procedures for verifying cash on hand.
- Cite guidelines for handling tips.
- Describe the cashier's responsibilities for counter items.

ASSIGNMENT

- Read Chapter 33 in the *Food Production, Management, and Services Reference Book.*

COMPUTING THE CHECK

TS33:1* Have students listen to a tape of interviews with restaurant managers or employers explaining the correct procedure for preparing the guest check. KEY QUESTIONS: Where is the check figured? Who can total the checks? When should separate checks be made? Why should prices and arithmetic be checked carefully before presenting the check?

TS33:2 Have students observe a demonstration using Teaching Aid 130, Sample Guest Check, on preparing checks for the food service lab. If students are employed in businesses, ask them to share the methods used to compute guest checks where they work. KEY QUESTIONS: What are the steps involved in the check preparation procedure? Do all restaurants prepare checks in the same way? What items may be included in addition to menu items? What should be done if a mistake is made on a guest check?

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* TS 33:1 indicates teaching strategy, chapter 33, number 1.

TS33:3 Demonstrate how to use a tax table to find the amount of tax to be added to the check. Also, show students how to figure the tax without a tax table by following the steps below:

Step 1 - Multiply the subtotal on the check by the sales tax rate to find the amount of tax for the check.

Step 2 - Add the amount of the tax to the subtotal to find the total amount of the check.

Provide examples of check subtotals for students, and assist them as they practice computing check totals, both with and without a tax table.

TS33:4 Lead a class discussion on the importance of accuracy in totaling the checks. KEY QUESTIONS: Why is accuracy important when computing a check? What should you do to make certain a check has been totaled carefully and correctly? What should you do when a mistake is found?

PRESENTING THE CHECK

TS33:5 Demonstrate for students the correct way to present a check to a customer. KEY QUESTIONS: When is the check presented to the customer? How is the check presented to the customer? Where should the check be placed when the host is known? when the host is not known? when a man and woman are dining together?

TS33:6 Have students present skits of servers presenting checks to guests. Lead students to evaluate the techniques portrayed in the skits. KEY QUESTIONS: Which server presented the check correctly? What was done wrong in presenting the check to the other guests? Did the server present the check at the correct time? If not, when should the check have been given to the customer?

PERSONAL CHECKS AND CREDIT CARDS

TS33:7 Have students work in groups to develop charts which list common policies for handling credit cards. Be sure the charts include information such as that listed on page 423 of the Reference Book. Instruct each group to base their chart on actual procedures followed at a specific food service establishment. Have all groups present and explain their charts to the class, and lead students to analyze and compare the similarities and differences in procedures followed at various establishments. KEY QUESTIONS: Why is it important to verify that the credit card is signed by the holder? Through what methods can credit authorization and verification be obtained? What procedures are based on automated, computerized systems? What procedures are followed with older stamping machines? What credit card safeguards should be practiced regardless of the mechanical system in place for processing charges?

TS33:8 Provide samples of as many "hot card" lists, stamping machines, and credit slips as possible to enable students to practice the correct procedures for accepting credit cards from customers. Let students work in pairs to practice an employee receiving a credit card from a customer.

TS33:9 Use Teaching Aids 140a, Check These Checks, and 140b, Check These Checks (Answers), to show students the items to verify when accepting personal checks. Lead a class discussion on each example and add other examples, such as a two-party check, if desired.

MAKING CHANGE

TS33:10 Divide the class into pairs. Instruct each pair to use play money bills and some actual coins to practice making change. NOTE: Be sure students leave the customer's money on the outside of the register until the change is given and count the change twice – once when taking it out of the cash drawer and again when placing it in the customer's hand.

TS33:11 Lead a class discussion on how customers may feel when the cashier makes a mistake when giving them change. KEY QUESTIONS: How may customers react if they receive too little change? How may they react if they receive too much change? What role does honesty play in these situations? If the cashier makes the mistake, who pays for it?

TS33:12 Have students take turns playing the role of restaurant cashier. Have them work the following problems: a customer's bill is $2.75, and you are given $3.00; another customer's lunch costs $4.20, and you are given $4.50; a couple's total check is $11.40, and they give you $15.00. How much change should be returned in each situation? NOTE: Make up additional problems for students to solve.

USING A CASH REGISTER

TS33:13 Demonstrate to students how to close the cash register and prepare the cash register report. Have students practice by following the steps outlined on page 424 of the Reference Book.

TS33:14 Have students listen as a cashier describes how to prove cash. KEY QUESTIONS: Who may supervise proving cash? Why should it be done out of sight of the public? What information is included in the cashier's report?

TS33:15 Have students look at pictures of different types of cash registers. Explain how to use the cash register in the laboratory. KEY QUESTIONS: Does the cash register in your laboratory look like the cash registers in the pictures? How are all the cash registers alike? NOTE: Cut pictures of cash registers out of equipment catalogs.

TS33:16 For one week, have students notice the different kinds of cash registers used in stores or restaurants. At the end of the week, have students report to the class about the cash registers they saw. KEY QUESTIONS: Where did the numbers show up on the cash register? Did the amount of the purchase show up? Was the amount of change displayed? Where was the money drawer? How was money placed in the drawer? Where were checks kept? Were the cash registers like the one in the laboratory? If not, how were they different? What did the buttons or key pads look like? If you saw a receipt ticket, what did the printing look like? What size were the cash registers? Where were they located?

VERIFYING CASH ON HAND

TS33:17 Invite a food service cashier to explain how to verify cash on hand and set up the change bank at the beginning of a shift. KEY QUESTIONS: Why should cash be verified at the beginning of each shift? What procedures are used for setting up the change bank?

TS33:18 Provide students with a cashier's report. Have students use sample checks, play money, and coins to verify the report. Let students practice verifying different reports.

TS33:19 Have students explain in their own words how to set up a change bank. KEY QUESTION: What is the purpose of a change bank?

HANDLING TIPS

TS33:20 Have students participate in and watch skits about servers receiving tips from customers. KEY QUESTIONS: Were the employees courteous to the customer? Were the employees' attitudes desirable in the particular situation? If not, what should the employee have done? Why is it important to give prompt and courteous service?

TS33:21 Lead a class discussion on quick ways to figure 15%-20% tips since a customer may request that the tip be added to the check. KEY QUESTION: How should the server respond when the customer asks that the tip be added to the check?

MANAGING COUNTER ITEMS

TS33:22 Have students name the responsibilities of the head cashier. List these responsibilities on the board. Examples of responsibilities may include:

a) ordering items such as candy, gum, mints, and cigarettes
b) inventorying items sold at the counter
c) restocking counter items
d) restocking vending machine items

34 Management Responsibilities

COMPETENCIES TO DEVELOP

- Describe personal qualities which lead to job success in food management, production, and services.
- Develop, evaluate, and implement organizational goals, policies, and procedures in the operation of food service.
- Interpret and comply with laws and statutes pertaining to food service establishments.

OBJECTIVES TO ACHIEVE

- Identify desirable traits needed by a successful food service manager.
- Evaluate the food service operation in terms of organizational goals, policies, and procedures.
- Propose organizational goals, policies, and procedures appropriate for food service operations.
- Determine methods for effective utilization of appropriate goals, policies, and procedures in food service operation.
- Identify laws and statutes most related to food service operations.
- Identify ways to comply with laws and statutes pertaining to food service establishments.

ASSIGNMENT

- Read Chapter 34 in the *Food Production, Management, and Services Reference Book.*

PERSONAL CHARACTERISTICS FOR MANAGEMENT

TS34:1* Have students list desirable traits that a food service manager should possess. Compare the list done in class to the list on page 430 of the Reference Book. Lead students to discuss traits mentioned. KEY QUESTIONS: Are these traits "naturally possessed" or can they be developed? Could a manager succeed without possessing all of these traits? Why?

TS34:2 Have each student draw a slip of paper listing one of the following traits and give an example of how a successful manager would use the trait:
- working well with people
- being enthusiastic and creative around employees

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* TS 34:1 indicates teaching strategy, chapter 34, number 1.

- being able to set and achieve goals
- being organized, making decisions, and learning from mistakes
- observing company policies
- being willing to devote long hours required in food service

TS34:3 Assign students to poll managers of local food establishments to obtain a list of traits that managers feel are necessary for success. Have students compare their lists with the list compiled in class and the one on page 430 of the Reference Book. Lead a class discussion on the comparisons.

TS34:4 Lead a class discussion on the advantages and disadvantages of being a food service manager. KEY QUESTIONS: How can a manager motivate employees to do the required work? What personality traits are needed by the manager to maintain good working relationships with employees? What kind of training or experience is required of a food service manager?

ORGANIZATIONAL GOALS, POLICIES, AND PROCEDURES

TS34:5 Lead students to define the term "organizational goals" and to discuss the importance of organizations having such goals. KEY QUESTIONS: What are some general goals that apply to most food service operations? Who determines the organizational goals for a particular business? How does a business benefit from having clearly defined organizational goals? What are examples of organizational goals or mission statements of some well-known food service establishments?

TS34:6 Invite some food service managers to speak to the class on policies and procedures. NOTE: Policies usually deal with permanent factors such as wages, vacations, holidays, personnel, customers, and food service operations; procedures detail how the policies will be carried out. KEY QUESTIONS: Whose responsibility is it to determine policies? Why is it important to have policies for a food service operation? How can the organization keep from being overburdened with overlapping policies and procedures? Who enforces these policies?

ESTABLISHING GOALS, POLICIES, AND PROCEDURES

TS34:7 Have students view Teaching Aid 141, Keys to Successful Food Service Organization. Divide the class into small groups, and have each group select one "key." Ask each group to develop some policies and procedures that might aid the business in reaching the goal stated on their key.

TS34:8 Invite a food service manager to visit your class. Ask the manager to discuss the process of setting organizational goals and the policies and procedures for meeting the goals. KEY QUESTIONS: Who is responsible for setting the goals? What policies and procedures might help achieve these goals?

TS34:9 Lead a discussion on the steps in planning that can be followed to develop policies. KEY QUESTIONS: How can a manager decide whether a new policy or procedure is needed when problems arise? Is it a good idea to have a lot of policies? Why?

UTILIZATION OF GOALS, POLICIES, AND PROCEDURES

TS34:10 Have students develop a chart that shows areas of food service where employees may be involved in problem-solving. NOTE: Information on pages 433-434 in the Reference Book may be incorporated into the chart. Display the chart in the room. KEY QUESTIONS: How can managers involve employees in making the business successful? How do the employees feel when they take an active part in the food service operation? What situations may result if employees feel they have no input in operation of the business?

TS34:11 Have students participate in a simulated experience where the manager is conducting a management meeting. Have a student pretend to be the manager and show good, clear communication with the employees. Lead a class discussion on what the acceptable behavior is, what the goals of the organization are, and the importance of working together to help the organization run smoothly and be successful.

TS34:12 Lead a class discussion on the importance of communication as a key to effective food service management. Managers should seek each employee's active participation and be accepting of ideas presented. Ask seven students to demonstrate "group communication" for the class. The students should be seated at a table and given a problem related to food service for which their "committee" is to develop a new policy. Once they are in position, put a paper headband on each committee member, without the student knowing what his or her headband says. Tell the committee to react to the contributions or suggestions from that member as instructed by the headband. The headband might say ignore me, agree with me, disagree with me, laugh at me, ask me, tell me, or praise me. Let the group discuss the situation for about ten minutes or until students realize what is happening. KEY QUESTIONS: Was the group able to work well together in arriving at solutions to their predetermined situation? How did students wearing the various headbands feel? How did those feelings affect their contributions to the committee? How could the communication within the group have been improved?

TS34:13 Using Teaching Aid 142, One Way–Two Way Communication, have students play the "one-way–two way communication game." NOTE: Give several students the opportunity to direct the communication. Lead students to discuss the communication processes displayed. KEY QUESTIONS: Which type of communication was the easiest to follow? Which set of drawings were the most accurate? Was two-way communication more effective than one-way communication? Why?

LAWS AND CODES RELATED TO FOOD SERVICE

TS34:14 Divide the class into two teams to compete in a game of "Management Baseball." Draw a baseball diamond on the chalkboard. Ask a question like the ones on Teaching Aid 143, Management Questions, to a student on one team. (Students can determine their team's "lineup.") Each "hit" (correct answer) advances a runner one base. Four hits score a run. Each missed question is an out. After three outs, go to the next team. The team with the most runs wins. NOTE: Other questions may be added. Give the winning team a privilege or award of some type.

TS34:15 Invite a food service manager to class to discuss various laws and codes related to food service operations. KEY QUESTIONS: How do the laws and codes directly affect food service employees? Does every food service operation abide by the same laws and codes? Do these laws vary from state to state? Who enforces the laws? Who checks to see if food service operations are following these laws?

TS34:16 Obtain copies of the W-4, W-2, and W-4E forms from the Internal Revenue Service to help students learn the procedures for filling out these federal income tax forms. KEY QUESTIONS: Why is it important to fill out these forms correctly? Which form determines how much income tax the employer should withhold?

COMPLIANCE

TS34:17 Obtain a copy of the local food sanitation code. KEY QUESTIONS: How can food service operations stay aware of the laws and changes in laws and codes affecting them? How can workshops inform the employees about sanitary codes and techniques that can be used to keep the food service establishment in compliance with the law?

TS34:18 Invite a sanitary inspector from the local or state department of health to conduct a workshop for the class. The workshop should be similar to training workshops conducted for restaurant employees. KEY QUESTIONS: What are the sanitation inspector's responsibilities? Which codes (state or local) are the strictest? Who is responsible for knowing, understanding, and complying with the codes that apply to the food service operation?

35

Cost Control

COMPETENCIES TO DEVELOP

- Cost menu items, set menu prices of foods, and make changes in the menu when needed.
- Prepare market orders, and purchase food and consumable supplies.
- Select, develop, and standardize recipes.
- Plan menus appropriate for type of food service.

OBJECTIVES TO ACHIEVE

- Identify food, labor, and equipment cost control procedures.
- Identify factors influencing menu preparation.
- Outline procedures followed to establish menu prices.
- Demonstrate the method used to standardize recipes.

ASSIGNMENT

- Read Chapter 35 in the *Food Production, Management, and Services Reference Book.*

MENUS - THE FRAMEWORK OF COST CONTROL

TS35:1* Invite a cafeteria or restaurant manager to visit the class and lead a class discussion on procedures used for planning menus. KEY QUESTIONS: How far in advance are the menus planned? Who does the menu planning? Are the menus fixed or are they cycled? Why? How frequently are new menu items introduced?

TS35:2 Ask one or two students to interview a representative from a food service operation that uses fixed menus and report to the class. KEY QUESTIONS: What are some advantages to having a fixed menu? How does a fixed menu affect cost control?

TS35:3 Obtain and display for students a copy of the national school lunch guidelines from the cafeteria manager. Distribute copies of Teaching Aid 144, Menu Planning Worksheet for Schools. Have students plan a school lunch menu for their age group. Discuss and evaluate menus in class.

TS35:4 Obtain menus from your school cafeteria, a hospital, and several local restaurants. Ask students to look at the menus and lead a class discussion on factors that might have affected the planning of the menus. These factors may include the following:

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* TS 35:1 indicates teaching strategy, chapter 35, number 1.

- nutritional needs of customers
- type of food or meal service
- size of food service operation
- limitations of equipment
- number, skill, and availability of employees
- market price and availability of food
- variety and appeal of foods
- amount of revenue needed by the food service operation
- limited menu for quick preparation and service

KEY QUESTIONS: Would all the above factors be equally important in each type of food service establishment? Which factors would be of most concern in hospital food service? in a local restaurant?

TS35:5 Teaching Aid 145, Cycle Menu Chart, will give students an idea of how cycle menus are rotated. Have students describe how the chart would be implemented. Lead a class discussion on the purpose of rotating menus. KEY QUESTIONS: What are advantages of using cycle menus? What are disadvantages?

PRICING MENU ITEMS

TS35:6 Lead a class discussion on how to control costs in food service operations. KEY QUESTIONS: What are the three major areas of concern for controlling the costs in food service? Do all three have to be considered when pricing the menu items? Why?

TS35:7 Have students pick from a box a piece of paper that has a piece of labor-saving equipment listed on it. Have students discuss how the piece of equipment could cut down on labor costs. Include pieces of paper listing the following labor-saving equipment:

1. automatic instead of manual slicer
2. conveyor dishwasher instead of door type dishwasher
3. convection oven instead of conventional deck oven
4. automatic timer shutoffs on equipment instead of watching the clock for manual shutoff
5. automatic counters on a slicer instead of employee counting the slices
6. vertical-cutter-mixer cutting and mixing in seconds instead of the worker cutting and mixing by hand
7. automatic defrost instead of an employee taking food out and defrosting
8. pre-rinse on dishwasher instead of the employee scraping and rinsing
9. conveyor belts on assembly line instead of manual movements
10. utility carts, portable tables, and wheels on equipment to save number of steps and trips

CRITICAL QUESTION: How does management of a food service establishment determine whether labor costs saved through use of equipment such as that listed above justifies the cost to purchase and maintain the labor-saving device(s)?

TS35:8 To explain techniques used to control labor costs and overhead, have students interview a supervisor or the manager of the food service establishment where they are employed. Ask each student to report interview results to the class. KEY QUESTIONS: Are the cost control techniques similar in most food service establishments? Why? Which is easier to control, labor costs or overhead costs? Why? What role does scheduling play in labor costs?

TS35:9 Have students explain differences in an a la carte priced menu and a table d'hote priced menu. KEY QUESTIONS: Which system results in higher menu item prices? Which system offers more menu items? Which system is more frequently used?

FOOD COST CONTROL

TS35:10 Lead a class discussion on food cost control and how it is figured. KEY QUESTIONS: How is food cost percentage determined? How is the food cost percentage used in determining the selling price? What is added to the selling price to determine the menu price?

TS35:11 Have students figure the price of a meal consisting of a 6-oz. steak, a small salad, and a baked potato using the a la carte system of pricing. Then figure the cost of the same meal by the table d'hote method. KEY QUESTIONS: Which meal will cost less? Which method is easiest to figure?

HOW THE MENU AFFECTS MANAGEMENT

TS35:12 Ask students to list the considerations managers must address before adding new items to a menu or when planning a menu for a new restaurant. Lead a class discussion on the lists. KEY QUESTIONS: How do equipment availability and adequate work space help determine what can be included on the menu? What are the influences of forecasting and record keeping?

STANDARDIZED RECIPES

TS35:13 Provide students with examples of standardized recipes. KEY QUESTIONS: What does a standardized recipe guarantee? How can a standardized recipe reduce employee confusion during food preparation? How do standardized recipes prevent loss of quality despite personnel turnover?

TS35:14 Have students work in small cooperative learning groups to examine standardized recipes (from different sources) to see if the guidelines were met. NOTE: Guidelines are included on pages 444-446 of the Reference Book. KEY QUESTIONS: Which recipes appear to be best? How could a computer be used to assist with standardized recipes and menu pricing?

TS35:15 Have students prepare recipes to test. Ask persons with a knowledge of foods to evaluate the product for the following:

- taste
- appearance
- labor required
- amount of preparation required
- cost

Have students identify problems, make adjustments, and retest the recipes, if necessary, to obtain a desirable product.

36

Buyers, Receivers, and The Storeroom

COMPETENCIES TO DEVELOP

- Contact purveyors, and compare food prices.
- Direct stockroom activities.
- Take inventories of food, utensils, and equipment.
- Utilize food, labor, and equipment cost control procedures.

OBJECTIVES TO ACHIEVE

- Determine effective methods for purchasing food and consumable supplies.
- Develop an effective and efficient method of conducting stockroom activities.

ASSIGNMENT

- Read Chapter 36 in the *Food Production, Management, and Services Reference Book.*

PURCHASING FOOD AND CONSUMABLE SUPPLIES

Characteristics of a Buyer

TS36:1* Lead a class discussion on effective methods which may be used to purchase food and supplies. KEY QUESTIONS: Who is in charge of buying food and supplies? When might a manager or a chef do the buying? When does the food production begin?

TS36:2 Have students list characteristics needed by a buyer. KEY QUESTIONS: What kind of knowledge is needed by the food buyer? What kind of training does a buyer need?

TS36:3 Invite a food service buyer to demonstrate to students how to write purchase specifications for food and supplies. After the demonstration, ask the speaker to discuss the importance of each of the following specifications:

1. trade or common name of the product
2. quantity required in a can or package-weight, measure, number
3. brand name or quality designated by trade or federal grade
4. description of the product, color, size, texture, cut, style pack

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* TS 36:1 indicates teaching strategy, chapter 36, number 1.

5. unit (size) on which prices shall be quoted (For example: 6 No. 10 cans per case; 4 1-gal. jars; or per lb.)
6. sanitation standards under which product is to be packed (U.S. inspected)

Purchasing Principles

TS36:4 Review and lead a class discussion on the purchasing principles outlined on page 452 of the Reference Book. KEY QUESTIONS: What are the advantages of keeping inventory as low as possible? Why is it important, however, that inventory items not be allowed to run out? What are advantages of purchasing from local suppliers?

TS36:5 Give students examples of a weekly menu for the school cafeteria, and ask them to practice preparing an order for the necessary supplies and foods. Be certain students follow the specifications outlined in TS36:3 for writing out specifications when ordering.

Five Steps to Effective Purchasing

TS36:6 Lead a class discussion on the five steps to effective purchasing as described on pages 452-456 of the Reference Book. KEY QUESTIONS: Is any one step more important than the others? Why? For how long a period do most restaurant buyers purchase at one time?

TS36:7 Have students study the labels on ten different types of products. Note the grade, if any, of the product. KEY QUESTIONS: What other information is contained on the label? How will buying the wrong grade affect food cost and quality?

TS36:8 Set up a display of various institutional container sizes used in food service. Lead a class discussion on the number of servings each size would yield. In what quantities are the foods purchased? (For example: case, pound, or carton.) What container sizes are used for various foods?

TS36:9 Have students look at federal and local government releases in daily newspapers and in newsletters for information concerning commodity food prices, crop conditions, and other buying information. Lead a class discussion on why a food buyer would need to be informed about food prices and crop conditions.

TS36:10 Have students make a list of the different suppliers from which food and supplies are purchased in different food service establishments. KEY QUESTIONS: How many suppliers are used for each type of food? How often are deliveries made? Who serves as the buyer in each establishment?

RECEIVING, INSPECTION, AND STORAGE

TS36:11 Have students interview several food service managers and report on the interviews in class. Compare and lead a class discussion on the inspection, receiving, and storage procedures used in various food service establishments.

TS36:12 Lead a class discussion on the method of receiving and inspection that is carried out in the school laboratory. KEY QUESTIONS: Who is responsible for checking the incoming orders? What can be done if supplies or food deliveries do not meet specifications?

TS36:13 Arrange for students to look at the storage facilities for the school cafeteria. Ask a worker to explain how food and supplies are received.

Storeroom Control

TS36:14 Have students list rules for storeroom controls that prevent pilfering or spoilage. Lead a class discussion on each rule.

TS36:15 Provide examples of requisition forms. Have students study the forms and explain their use. KEY QUESTIONS: What type of food service operation uses requisitions? What information should be included on each requisition form? Who must sign the form before supplies or food can be released from the storeroom?

37

Finances and Recordkeeping

COMPETENCIES TO DEVELOP

- Prepare and maintain records, correspondence, and forms.
- Plan and analyze finances, costs, and sales.

OBJECTIVES TO ACHIEVE

- Identify factors affecting financial stability of food service operations.
- Describe financial records needed in food service operations.
- Analyze financial records to determine the financial status of food service operations.
- Identify ways in which computers are being used in food service.
- Determine factors to consider when selecting a computer system for food service.

ASSIGNMENT

- Read Chapter 37 in the *Food Production, Management, and Services Reference Book.*

FINANCIAL STABILITY OF FOOD SERVICE

TS37:1* Ask students to identify the causes of profit loss in various situations. Have them work in groups to develop and describe possible solutions to each stated problem. As groups share their situations and recommended solutions, lead the class to analyze each case.

TS37:2 Have students identify and discuss ways of dealing with high food and supply costs. KEY QUESTIONS: How could waste be reduced? How can theft of supplies and food be controlled? What other policies and procedures might be implemented to help control food and supply costs?

FINANCIAL RECORDS

TS37:3 Ask students to define balance sheets, assets, and liabilities. Lead students to brainstorm examples of a restaurant's assets and liabilities. A sample balance sheet is located on page 463 of the Reference Book. Lead students to discuss information provided on the balance sheet.

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* TS 37:1 indicates teaching strategy, chapter 37, number 1.

TS37:4 Have students identify and describe two types of taxes that are taken out of an employee's paycheck. KEY QUESTION: What is another type of tax that some states require to be taken out of an employee's paycheck?

TS37:5 Have students check with a local food service operation and report back to the class the local and state taxes that the operation is required to pay. KEY QUESTIONS: What percentage of the purchase is the sales tax? How is the tax rate for your community calculated?

TS37:6 Prepare a bulletin board which displays samples of different employee record forms including employee schedules, time cards, and W-2 forms. Lead students to analyze and discuss each form.

TS37:7 Invite a local caterer to explain the records kept in a catering business. Have students write a summary of information presented.

TS37:8 Invite a public accountant or representative from the Internal Revenue Service or Small Business Administration to explain the importance of careful record keeping in small business. KEY QUESTIONS: What records are needed to check the financial health of a business? What records are necessary for tax purposes? Why is it important that records be accurately kept? What documentation should be retained to verify records? For how long should documentation and records be retained?

DETERMINING THE FINANCIAL STATUS OF FOOD SERVICE OPERATIONS

TS37:9 Provide copies of simulated financial records for various types of food service operations. Have students point out examples of profit and loss statements, break-even analyses, and balance sheets. KEY QUESTIONS: What are the assets of each operation? the liabilities? What is meant by the term "net profit"?What was the net profit for each operation? What is the purpose of each financial report provided in this activity?

COMPUTERS IN FOOD SERVICE

TS37:10 Have students identify and discuss ten ways computers are used in food service operations. KEY QUESTIONS: What are some of the ways computerized cash registers are used in food service? What kinds of recordkeeping can be done on a computer?

TS37:11 Ask students to list types of information that might be programmed into the computer for planning menus. Examples include type of food, color, flavor, texture, and main ingredients.

TS37:12 Assign students to small cooperative learning groups. Ask each group to select one type of food service operation and suggest several ways a computer could be utilized by the management.

TS37:13 As a class, tour a food service operation that is currently using a computer. KEY QUESTIONS: Are personnel records kept on the computer? Is the computer used for planning menus? How has the computer helped with inventory? Are financial records computerized? Has the computer saved operating costs? Why?

SELECTING A COMPUTER SYSTEM FOR FOOD SERVICE

TS37:14 Instruct students to consult computer magazines and write a software review applicable to food service. Have students share their reviews with the class, and lead a discussion on information presented. KEY QUESTIONS: What are the features of the software? What is the cost? What peripherals are needed, such as printer, color monitor, or graphing capabilities? What is the cost range of each peripheral equipment item needed?

TS37:15 Listen to a taped interview with a manager from a food service operation that is actively using a computer. KEY QUESTIONS: What factors were considered before selecting and purchasing a computer system? Who has primary responsibility for operating the system? What other employees utilize the system? How important is it that a prospective employee have some knowledge of computer operations?

TS37:16 Divide the class into small cooperative learning groups, and have students write a case situation about a food service business considering purchasing a computer. Have the groups exchange the situations and make recommendations on ways the computer could be used to improve management.

38

Personnel and Production Management

COMPETENCIES TO DEVELOP

- Identify procedures used to plan, interview, hire, evaluate, and discharge staff.
- Train personnel, and enforce policies of personal hygiene, sanitation, and safety.
- Prepare work schedules and job assignments.
- Evaluate use, cost, ease of preparation, and aesthetic qualities of foods.
- Plan, coordinate, and supervise production.
- Set production standards.
- Control and improve sequence of operations.
- Schedule food preparation tasks.

OBJECTIVES TO ACHIEVE

- Outline procedures for hiring and training new employees.
- Describe techniques for developing and coordinating work schedules and assignments.
- Identify factors that influence the development of work schedules and assignments.
- Outline procedures for firing or laying off employees.
- Describe methods for controlling labor costs in food service.
- Determine the benefits derived from effective methods of production and quality control in food service.

ASSIGNMENT

- Read Chapter 38 in the *Food Production, Management, and Services Reference Book.*

PERSONNEL MANAGEMENT

TS38:1* Invite a food service employer, such as a school lunchroom supervisor, restaurant manager, cafeteria manager, or a drive-in manager, to discuss qualities sought when hiring employees. KEY QUESTIONS: Which of the following attributes is considered most important: skills, experience, or attitude? Why? How would dependability rank among desirable qualities?

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* TS 38:1 indicates teaching strategy, chapter 38, number 1.

TS38:2 Instruct each student to look in the "Help Wanted Ads" for jobs in the food service area, circle the ads, and write a letter of application for one of them. Have students work in groups to evaluate and suggest ways to improve the application letters written by group members. Prepare a display of the ads.

Hiring

TS38:3 Ask each student to select a partner for role playing a job interview. Instruct one student to play the employer and the other the applicant. Have students switch roles when finished. Give each pair of students an opportunity to present their interview situation. A time limit may be needed to keep the action moving. KEY QUESTIONS: What was the applicant's attitude? Did the applicant desire to learn? Which applicant made the best impression? Why? What positive interview behaviors were displayed by applicants? How could the applicants have improved performance during the job inerviews?

Orientation and Training

TS38:4 Invite a representative from a large food service operation to discuss orientation and training of new employees with the class. KEY QUESTIONS: How long is the training period? Who conducts new employee orientation? Who conducts training? Is additional training provided for existing employees?

Scheduling

TS38:5 Describe different scheduling methods without revealing the name of the method. Ask students to identify each of the methods by name. Have students identify and explain advantages and disadvantages for each of the scheduling methods.

TS38:6 Lead students to compare the ways food service workers are scheduled in several different food service operations. KEY QUESTIONS: Which methods of production scheduling were used? Which was most commonly used? Which method appears to work the best for the different establishments? Why?

TS38:7 Have students interview workers who work different types of schedules to learn how they feel about their schedule. KEY QUESTIONS: What are the advantages and disadvantages of each type of schedule for workers? for management? Which type of schedule would each student prefer to work? Why?

Separations

TS38:8 Have students work in small groups to plan and role play the three following situations: 1) an employee being fired, 2) an employee being let go due to reduced business, and 3) an employee quitting. KEY QUESTIONS: What special considerations should be kept in mind in each case? How much notice should be given when an employee quits a job? Why?

TS38:9 Ask students to listen to a taped interview with a manager of a food service operation concerning policies for terminating employment. KEY QUESTIONS: What are grounds for firing an employee? Is the employee given a chance to correct the problem? How much notice is usually given to the employee?

TS38:10 Lead a class discussion on the exit interview. KEY QUESTIONS: Should a manager always conduct an exit interview? Why? What purpose does the interview have for the employee? for the employer?

CONTROLLING LABOR COSTS

TS38:11 Lead a class discussion on labor costs, including wages and salaries, meals, and benefits. KEY QUESTIONS: How can a manager determine if the labor costs are too high? How is the labor cost percentage figured?

TS38:12 Ask students to select one way to reduce labor costs and write a paper describing how the method works. NOTE: A list of ways to reduce labor costs is included on page 481 of the Reference Book.

TS38:13 Lead a class discussion on job descriptions, job analyses, and task analyses. KEY QUESTIONS: How are job and task analyses used by food service managers? How do these tools increase employee satisfaction?

TS38:14 Divide the class into cooperative learning groups, and assign each group one of the cost comparison methods. Have the group work together to find information on an assigned topic and present findings to the class.

PRODUCTION SCHEDULE

TS38:15 Ask students to look at the example of a production schedule illustrated on page 482 of the Reference Book. Lead a class discussion on how the use of this record assists the manager in determining yields, planning the use of leftovers, and in making the best use of available labor.

PRODUCTION AND QUALITY CONTROL

TS38:16 Lead a class discussion on production control indicators (sales records) used by managers to determine quantities. KEY QUESTIONS: What happens if too much food is prepared? How is food cost affected? What happens if too little food is prepared?

TS38:17 Demonstrate portion control tools, and lead a class discussion on the effects of incorrect portioning on production and quality controls. KEY QUESTIONS: Is portion control important during preparation as well as during serving? Why?

TS38:18 Divide the class into cooperative learning groups, and have each group manage a specific food service business with an emphasis on quality control. Have the students identify the types of quality control that are used by the business. KEY QUESTION: How have these methods affected their reputation in the community?

TS38:19 Invite a panel of managers from various food operations to come to the classroom, and have them discuss the types of production and quality control they use. KEY QUESTIONS: How have these methods affected their public image? How have they affected their cost control?

39

Merchandising and Public Relations

COMPETENCIES TO DEVELOP

- Arrange, design, and interpret menu sheets or folders.
- Evaluate use, cost, ease of preparation, and aesthetic qualities of foods.
- Apply merchandising techniques to ensure profit.
- Plan and conduct advertising and promotional programs.
- Handle complaints and human relations problems.

OBJECTIVES TO ACHIEVE

- Analyze procedures for effective marketing programs.
- Describe factors that affect the merchandising of the food service operation.
- Discuss common and profitable merchandising techniques.
- Discuss the relationship between advertising and promotional programs and public relations.
- Summarize techniques used to handle complaints and human relations problems.

ASSIGNMENT

- Read Chapter 39 in the *Food Production, Management, and Services Reference Book.*

MARKETING PROGRAMS

TS39:1* Invite a panel of representatives from a local advertising firm, the local newspaper, a television station, or a radio station to discuss what is needed for an effective marketing program. KEY QUESTIONS: What factors influence a marketing program? What are the most effective ways of advertising for a food service establishment?

Product Study

TS39:2 Lead a class discussion on the most popular restaurant in the area. Try to determine what makes the restaurant successful by analyzing its products, such as food, service, prices, and surroundings. If one of the products changes significantly, will the restaurant remain successful? Why?

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* TS 39:1 indicates teaching strategy, chapter 39, number 1.

Market Study

TS39:3 Ask students to write a one-page report on how to conduct a market study for a company that is considering building a Chinese restaurant in the area. Have students suggest ways to determine the potential customers for this restaurant.

DEVELOPING A MERCHANDISING PLAN

TS39:4 Instruct students to collect samples of printed food service advertisements from a variety of sources. Possible sources include telephone directories, newspapers, periodicals, direct mail, handbills, and advertising novelties. Have students record or write descriptions of radio and television advertisements, and take pictures of signs, billboards, and posters advertising food service establishments. Lead students to compare these various types of advertising and discuss their effectiveness.

TS39:5 Lead a class discussion on promotions and publicity as forms of merchandising. KEY QUESTIONS: How effective would a short-term promotion be in increasing sales over the long-term? How could the cost be determined if the restaurant is giving a free soft drink with each meal purchased? Is publicity used as a merchandising tool by any restaurants in the local area? If so, how successful is the technique?

TS39:6 Ask students to plan an appropriate advertising campaign for a proposed new restaurant in the area. Have them write papers describing the product features, the market, and the advertising means available.

TS39:7 Lead students to develop a merchandising plan for the school cafeteria. Obtain permission from the school principal and cafeteria manager. Have students work with the cafeteria manager to do product and market studies; select a merchandising theme; plan advertising, publicity, and sales promotions for the school cafeteria; and suggest ways to improve showmanship of the facility. Work with students to obtain approval for the plans and put them into action. Evaluate the results in collaboration with the cafeteria manager.

THE MENU AS A MERCHANDISING TOOL

TS39:8 Set up a display of menus from many different types of restaurants. Have students examine and compare the menus. Lead a class discussion on advantages and disadvantages of the different materials used, the various sizes, the colors and designs, formats, and texts.

SPECIAL MERCHANDISING TECHNIQUES

TS39:9 Lead a class discussion on the impact of special merchandising techniques such as showmanship, selling through suggestions by servers, and accepting credit cards. KEY QUESTIONS: How can showmanship techniques favorably impress customers? What type of attitude should servers display to increase sales? How can credit cards increase sales? What other merchandising techniques might be utilized?

TS39:10 Ask students to design a table tent to promote a specific product. KEY QUESTION: Does size determine the effectiveness of this type promotional material? Why?

TS39:11 Ask students to observe selling techniques used the next time they eat out. Have students report observations to the class. Lead a class discussion on the reported techniques. KEY QUESTIONS: How effective were the various techniques? Why?

PUBLIC RELATIONS

TS39:12 Lead a class discussion on how public relations may affect the success or failure of food service businesses. KEY QUESTIONS: What factors make up a "public image" for businesses? Would it be easier for a business to maintain a good public image or repair a marred public image? Why?

TS39:13 Lead a class discussion on how gracious treatment affects customers' attitudes toward a particular restaurant. KEY QUESTIONS: Would less than gracious treatment also affect customers' attitudes? Why? How does slow service influence business? What other examples of customer treatment would influence business positively? negatively?

CUSTOMER RELATIONS

TS39:14 Ask three students to role play a situation where the customer has a complaint about the food or the service. One student can play the unhappy customer, another student can play the role of server, and the third student can be the manager. KEY QUESTIONS: What is the best way to handle customer complaints? Did the customer in the skit leave the restaurant in a positive frame of mind? Why?

TS39:15 Write the topic, "Dealing with Those Everyday Complaints," on the chalkboard. Ask students to list positive suggestions for dealing with complaints under the topic. Add to the list as other ideas surface.

REFERENCES

Cornelius, Ethelwyn G. *Food Service Careers*. Peoria, IL: Charles A. Bennett Co., Inc., 1979.

Eshbach, Charles E. *Food Production Management*. 3rd ed. Boston, MA: CBI Publishing Co., Inc., 1979.

Food Production, Management, and Services: Reference Book. Lubbock, TX: Home Economics Curriculum Center, 1985.

Morton, Alexander Clark. *The Official Guide to Food Service and hospitality Management Careers*. New York, NY: Acro Publishing, Inc., 1981.

Splaver, Benard R. *Successful Catering*. 2nd ed. New York, NY: Van Nostrand Reinhold Co., Inc., 1982.

West, Bessie Brooks, Shugart, Grace Severance, and Maxine Fay Wilson. *Food for Fifty*. 6th ed. New York, NY: John Wiley & Sons, 1979.

Teaching Aids

TA 1

Restaurant Advertising

What type of service do these restaurants offer?

CITY HOSPITAL CAFETERIA
Open 7 a.m. — 10 p.m.
Serving Visitors, Patients, and Staff

JOHN BROWN'S RESTAURANT
Enjoy Selections From Our Lunch
and Dinner Menu
— Come Dine With Us—

CAMPUS CATERING
Specializing in:
Weddings
Conventions
Church Groups
Banquets
Picnics
Business Meetings

QUINT'S QUICK DOG
Dine-In or Take-Out
Hamburgers, Hotdogs,
and the Best Shakes
in Town!

DOWNTOWN CAFETERIA
* Breakfast, Lunch, and Dinner
* 7 days a Week
* Over 50 Selections

SUN STEEL COMPANY
* Open 11-3 Daily
* Employees Only

SHIPWIDE FOODS
We Prepare the Food
For Your Cruise

Is Food Service For You?

✓ Advantages

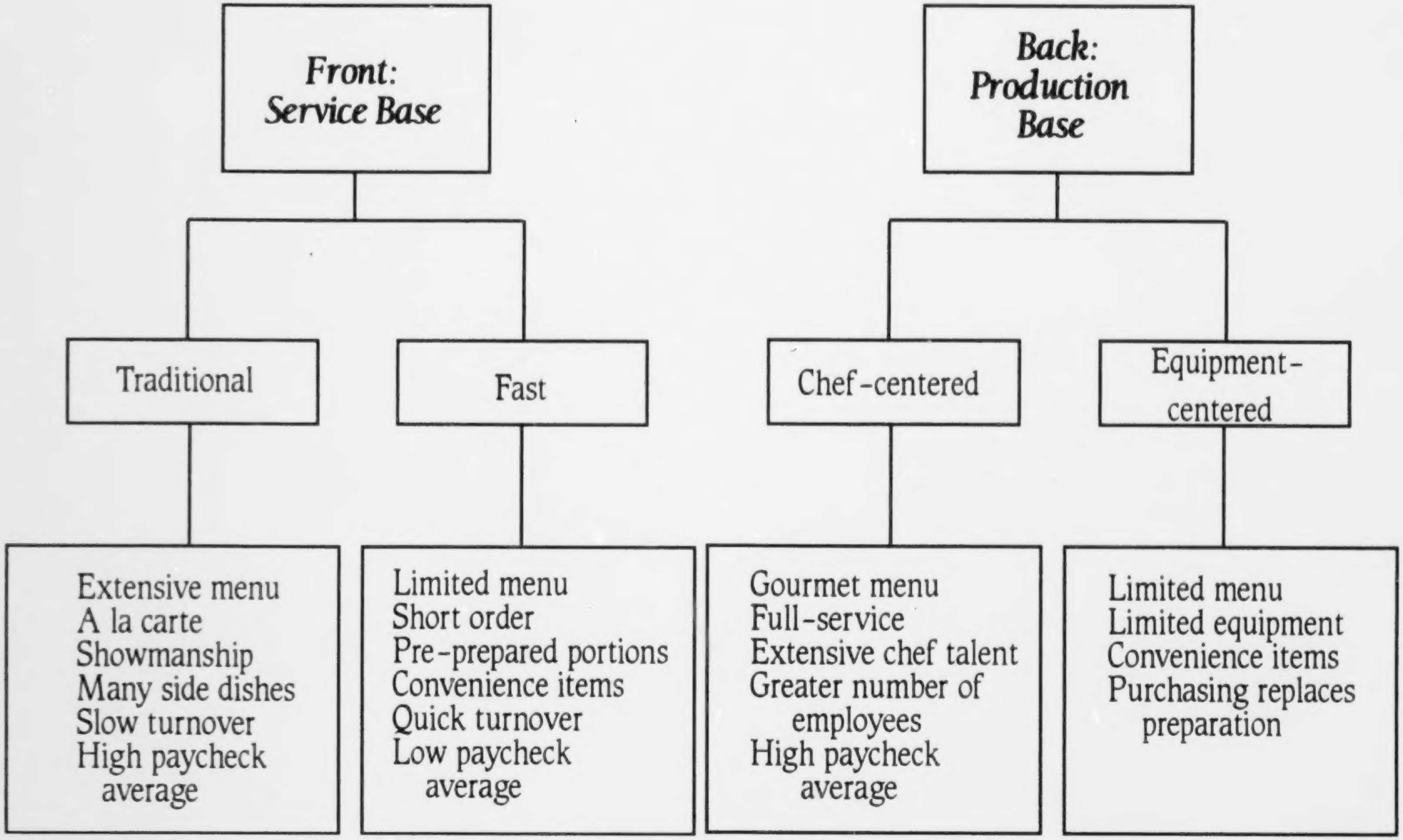
Many jobs available
Salaries and fringe benefits
Vacation
Part-time jobs
Flexible schedules
Demand for workers
Pleasant working conditions
Advancement opportunities
Management and ownership opportunities

✗ Disadvantages

Inconvenient hours
Work under pressure
Fatigue
Low pay for entry level positions

TA 3a

Front- and Back-of-The-House



- **Front: Service Base**
  - Traditional
    - Extensive menu
    - A la carte
    - Showmanship
    - Many side dishes
    - Slow turnover
    - High paycheck average
  - Fast
    - Limited menu
    - Short order
    - Pre-prepared portions
    - Convenience items
    - Quick turnover
    - Low paycheck average
- **Back: Production Base**
  - Chef-centered
    - Gourmet menu
    - Full-service
    - Extensive chef talent
    - Greater number of employees
    - High paycheck average
  - Equipment-centered
    - Limited menu
    - Limited equipment
    - Convenience items
    - Purchasing replaces preparation

Back-of-the-House

SUPPORT JOBS

Dishwasher
Preparer
Silver Polisher
Porter
Sanitation Supervisor
Steward

PRODUCTION JOBS

Produce Workers
Meat Cutters
Pantry Workers
Cooks
Bakers
Chef

CONTROL JOBS

Food Runners
Receiving Room Attendants
Storeroom Attendants/Supervisors
Food Checker
Cashier
Purchasing Steward

Front-of-the-House

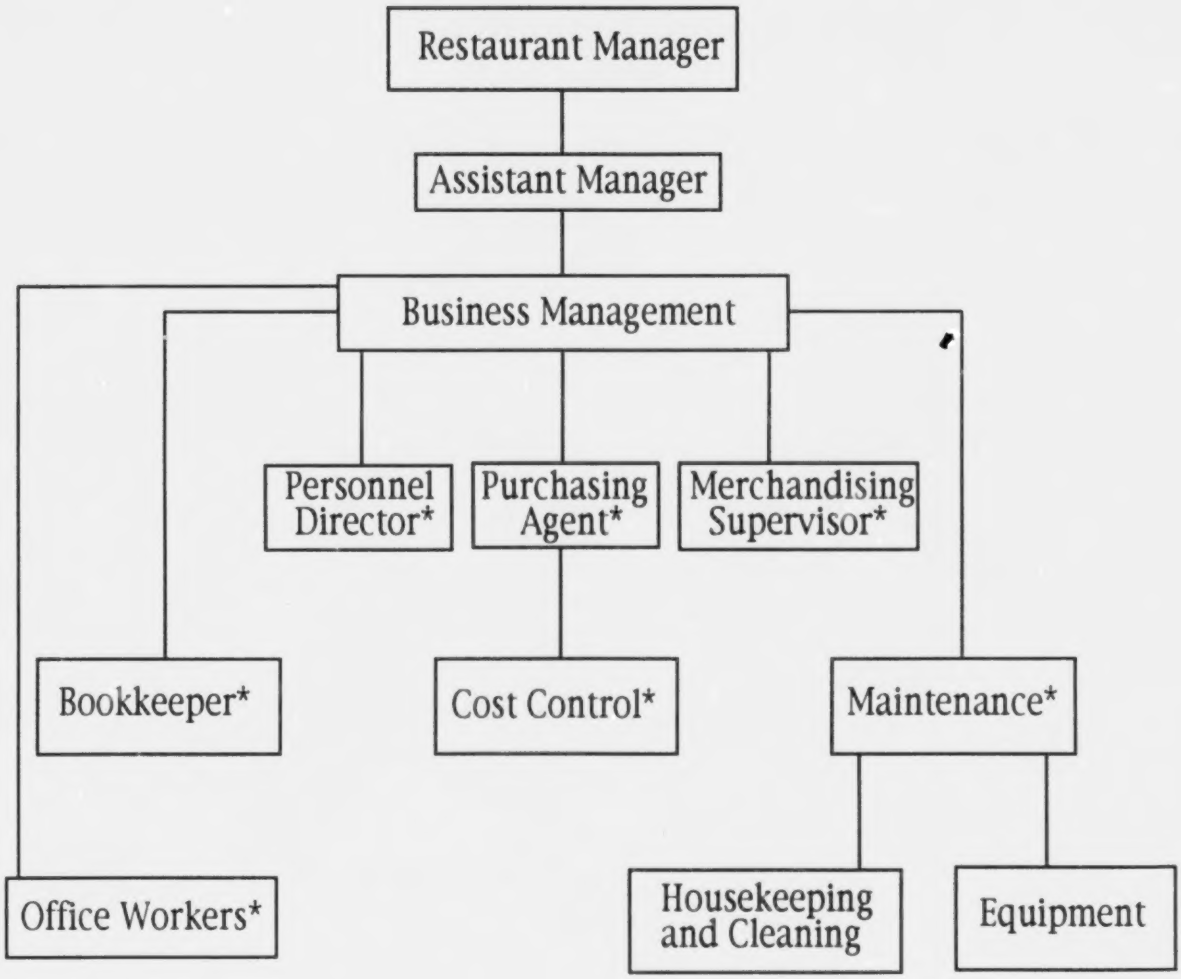
SERVICE JOBS

Set-up Personnel
Dining Room Attendant
Bartenders
Waiters and Waitresses
Dining Room Captains
Hosts/ Hostesses
Dining Room Manager

MANAGEMENT JOBS

Maitre d' Hotel
Banquet Managers
Food and Beverage Managers
Food and Beverage Controllers
Wine Steward
Executive Chef

Restaurant Organization

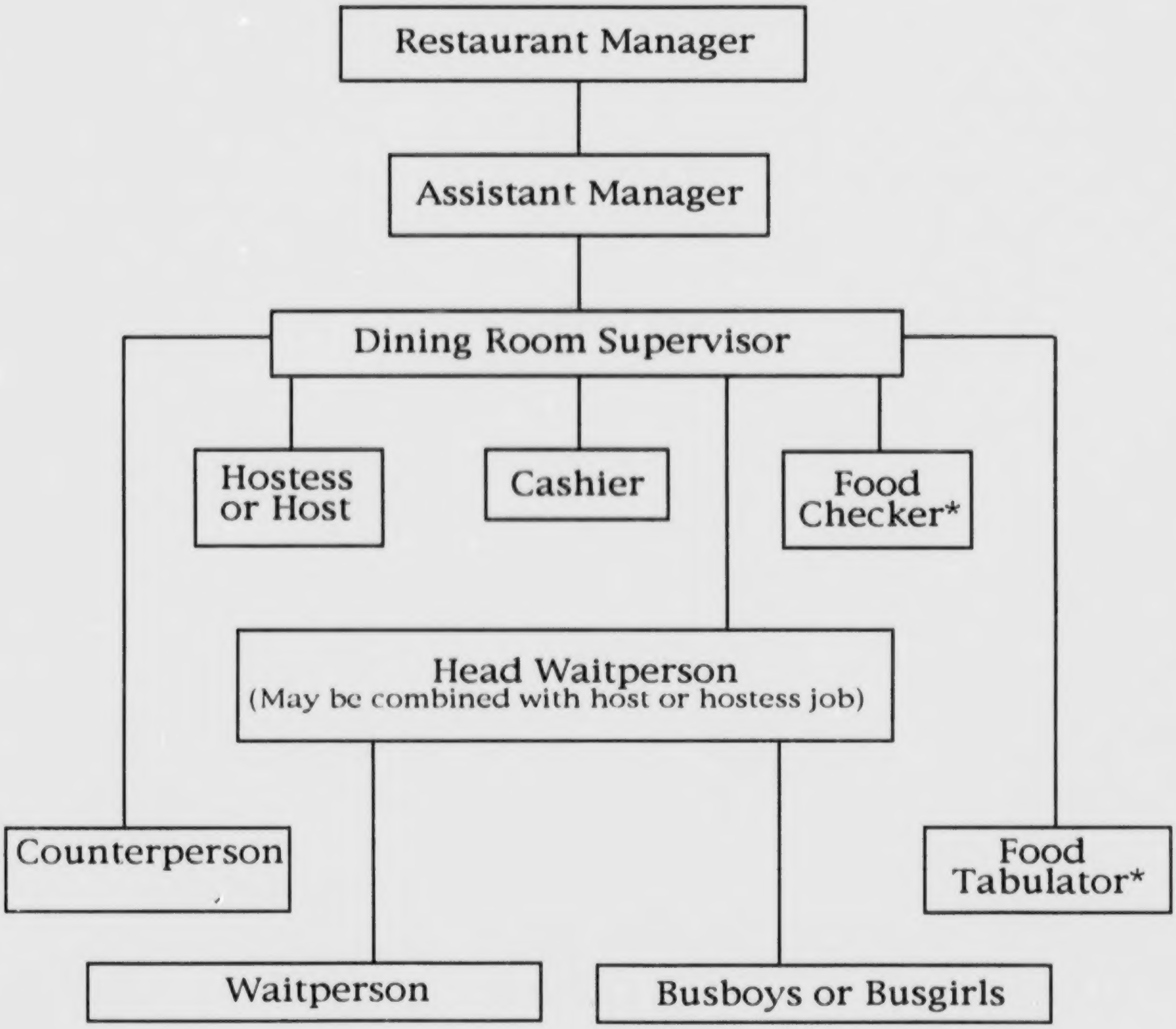

Restaurant Manager
Assistant Manager
Business Management
Personnel Director*
Purchasing Agent*
Merchandising Supervisor*
Bookkeeper*
Cost Control*
Maintenance*
Office Workers*
Housekeeping and Cleaning
Equipment

Customer Satisfaction in Sanitation, Business Control, and Quality Foods

*These jobs found in some larger restaurants, may be handled by other workers in smaller establishments.

TA 4

Restaurant Organization


Restaurant Manager
Assistant Manager
Dining Room Supervisor
Hostess or Host
Cashier
Food Checker*
Head Waitperson (May be combined with host or hostess job)
Counterperson
Food Tabulator*
Waitperson
Busboys or Busgirls

Customer Satisfaction in Foods— Variety, Taste, Flavor, and appearance

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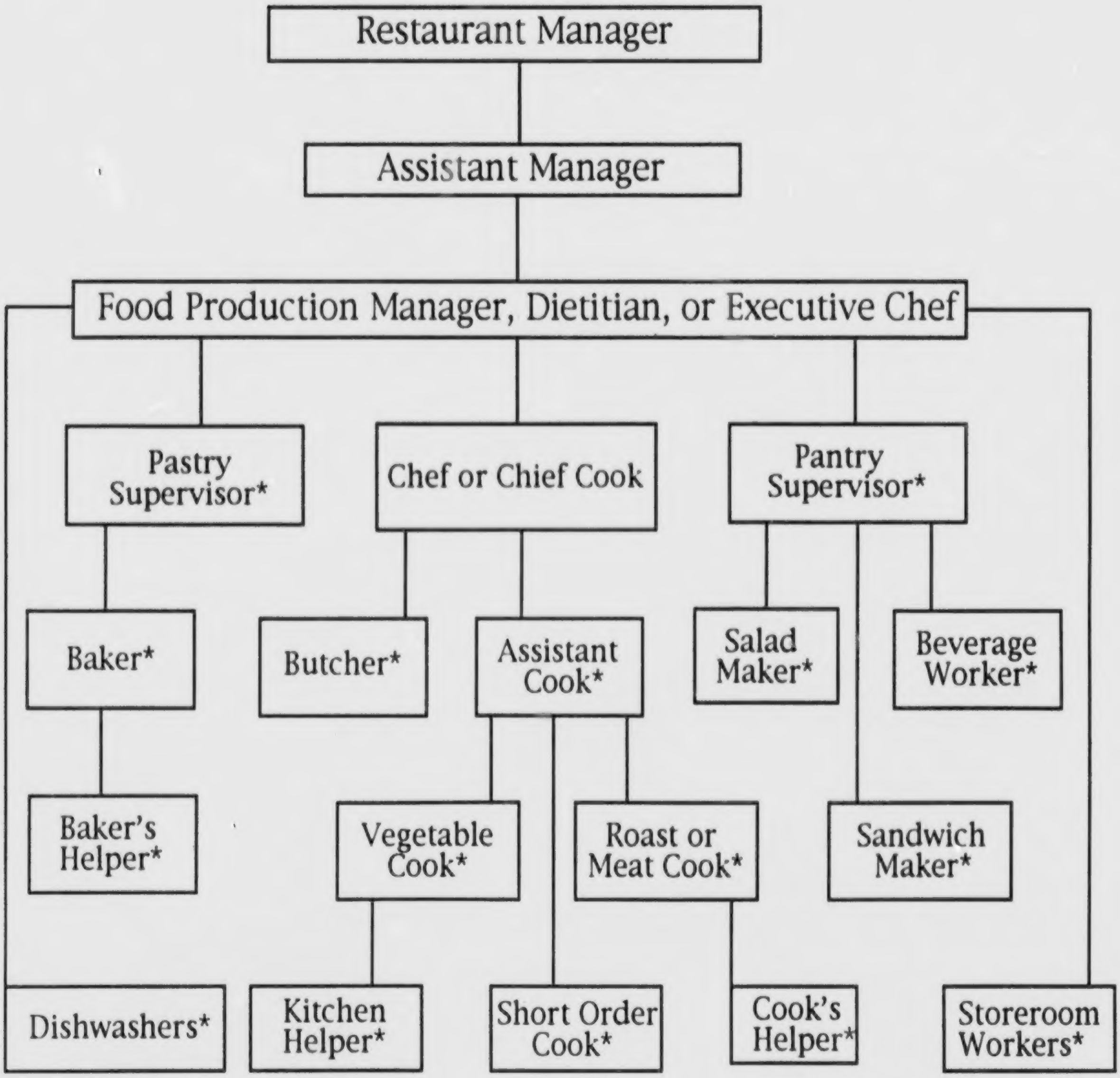
* These jobs found in some larger restaurants, may be handled by other workers in smaller establishments.

Restaurant Organizations


Restaurant Manager
Assistant Manager
Food Production Manager, Dietitian, or Executive Chef
Pastry Supervisor*
Chef or Chief Cook
Pantry Supervisor*
Baker*
Butcher*
Assistant Cook*
Salad Maker*
Beverage Worker*
Baker's Helper*
Vegetable Cook*
Roast or Meat Cook*
Sandwich Maker*
Dishwashers*
Kitchen Helper*
Short Order Cook*
Cook's Helper*
Storeroom Workers*

Customer Satisfaction in Foods — Variety, Taste, Flavor, and Appearance

* These jobs, found in some larger restaurants, may be handled by others in smaller establishments.

Opportunities for Advancement in Restaurant Positions

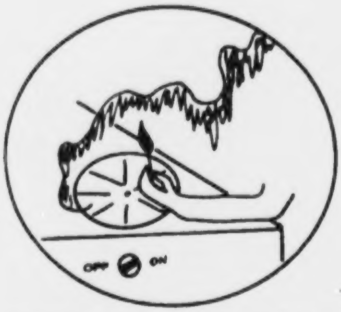
Job Title	**May Advance to...**
Entry-Level Positions (Employees may be trained on the job)	
Busboy or Busgirl	Waitperson, Soda Fountain Worker, Kitchen Helper, Sandwich Maker
Waitperson	Host or Hostess, Head Waitperson, Cashier, Dining Room Supervisor
Host or Hostess	Cashier, Dining Room Supervisor, Assistant Manager
Kitchen Helper	Specialized Food Preparer, Assistant Cook or Baker, Head Cook or Baker
Sandwich Maker	Cook, Pantry Supervisor, Waitperson
Soda Fountain Worker	Waitperson, Kitchen Helper, Soda Fountain Manager
Beverage Worker	Soda Fountain Worker, Specialized Food Preparer, Pantry Worker, Waitperson
Some Experience and/or Training Required	
Cashier	Bookkeeper, Accountant
Food Checker	Cashier, Storeroom Control Supervisor, Purchasing Agent
Cook-Chef	Vegetable Cook, Fry Cook, Soup Cook, Sauce Cook, Roast Cook, Chef
Baker-Pastry Chef	Baker, Pastry Cook, Pastry Chef
Pantry Supervisor	Food Checker, Food Production Manager

Continued...

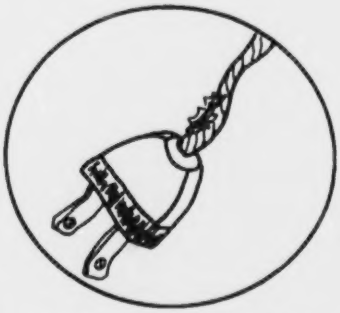
Job Title	**May Advance to...**
Food Service Supervisor	Assistant Manager, Restaurant Manager
Purchasing Agent or Storeroom Supervisor	Assistant Manager, Restaurant Manager
Butcher	Assistant Cook, Chef
Advanced Training and /or Experience Required	
Restaurant Manager	Chain Restaurant Supervisor, Restaurant Owner
Assistant Manager Restaurant Owner	Restaurant Manager, Chain Restaurant Manager
Food Production Manager	Assistant Manager, Restaurant Manager, Restaurant Owner
Chain Executive	Restaurant Owner
Personnel Director	Restaurant Manager, Restaurant Owner
Menu Maker	Food Production Manager, Assistant Manager, Restaurant Manager, Restaurant Owner
Merchandising Supervisor	Assistant Manager, Manager, Owner
Director of Recipe Development	Food Production Manager, Assistant Manager, Restaurant Manger

TA 6

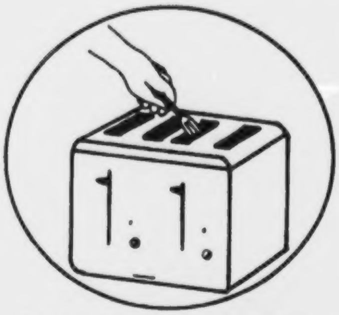
Safety Hazards



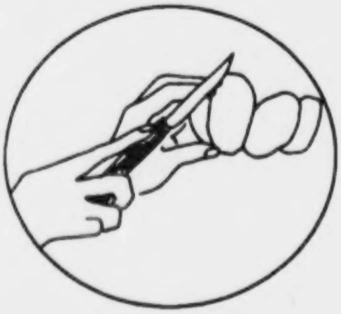
Gas on before match



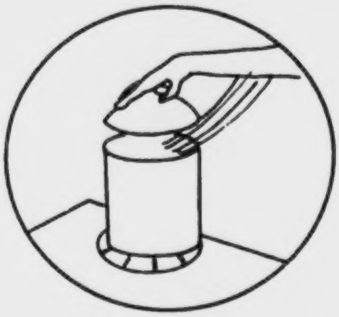
Frayed electric cord



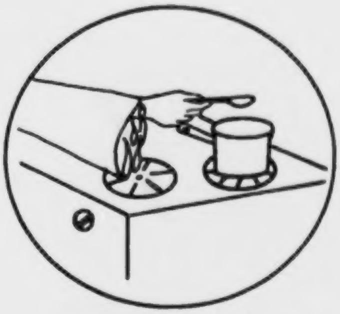
Fork placed in toaster



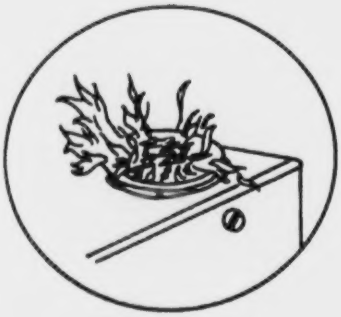
Cuts



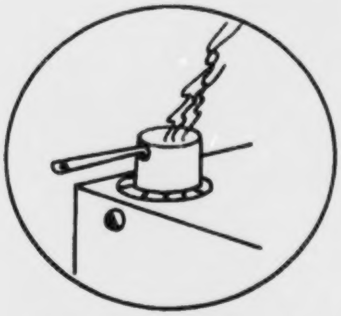
Steam burns



Improper clothes

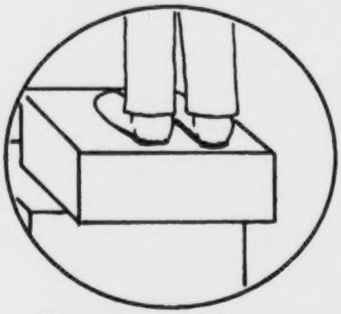


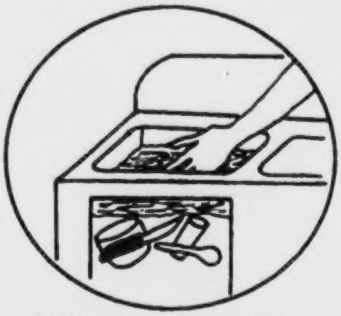
Grease fires

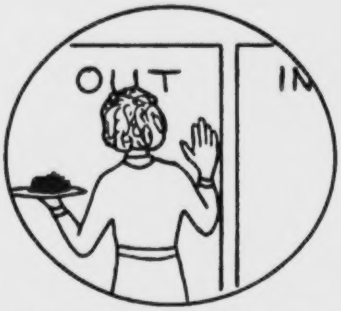


Handle facing out

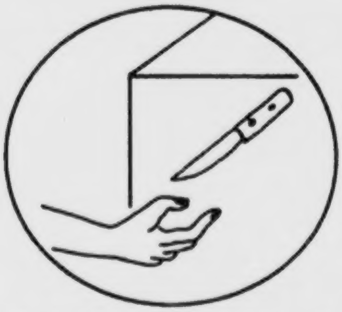
TA 6

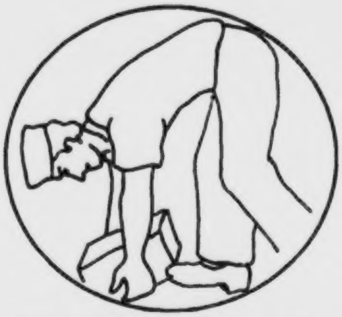

Standing on boxes
to reach high places

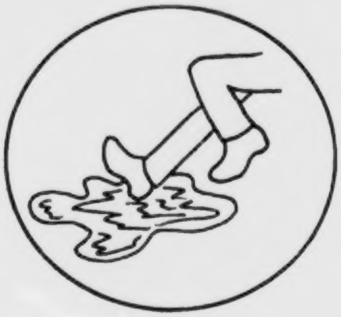

Knife in dishwasher

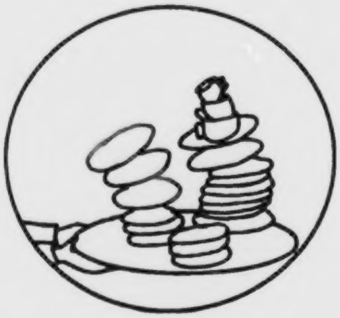


Improper traffic flow


Catching falling objects


Improper lifting position


Spills


Overloads

TA 7

The Three Elements of Fire

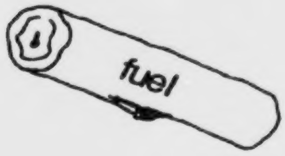
Remove Any One Element to Extinguish A Fire

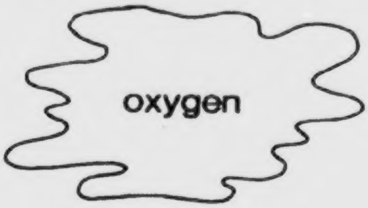
1. Oxygen

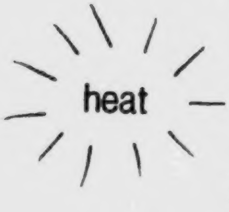
To remove
- put lid on pan
- douse with baking soda or salt
- use fire blanket
- cover with foam
- drown with water (unless grease or electrical fire)

2. Fuel

To remove
- turn off gas
- turn breaker-switch off
- remove flammable materials



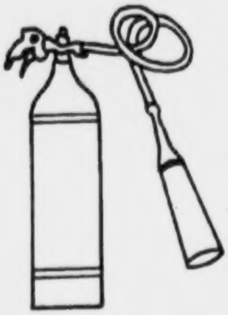
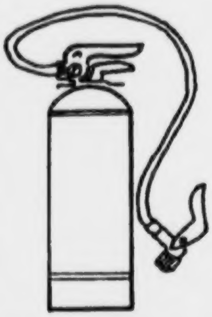
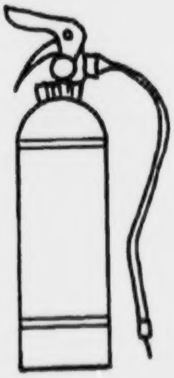




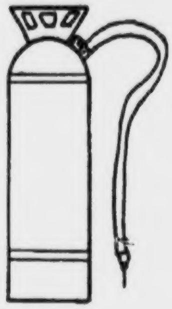
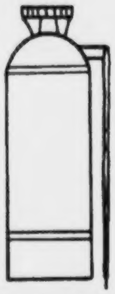
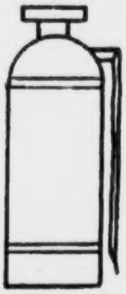
3. Heat

To remove
- cool with water
- turn of burners or heating element

Fire Extinguishers

Fire Extinguisher	*Contents*	*Use*	*Operation*
Carbon Dioxide 	Liquid carbon dioxide under pressure	Burning liquids or electrical fires where a smothering action is needed	Carry to fire, pull pin on side of handle, and open valve. Hold by insulated handle. Squeeze handle grip and direct discharge from horn to base of fire. Discharge range is 6 to 8 feet. A 15 pound size lasts about 42 seconds.
Dry Chemical 	Bicarbonate of soda, dry chemicals, and cartridge of carbon dioxide gas	Live electrical fires, wood, paper, excelsior, and other ordinary combustible materials	Carry to fire, pull pin, and open valve (or press lever). Squeeze handle grip and directly discharge to base of fire. Discharge range is about 14 feet. A 30 pound size lasts 22 to 25 seconds.
Pressurized Water 	Plain water	Paper, wood, excelsior, cloth, and general combustible fires requiring cooling and quenching	Carry to fire, squeeze handle grip, and directly discharge to base of fire. Discharge range is 30 to 40 feet. A 25 gallon size lasts 50 to 55 seconds. Do not use on burning liquids or live electrical fires; it will spread the fire or cause a deadly shock.

TA 8

Fire Extinguisher	***Contents***	***Use***	***Operation***
Soda Acid 	Bicarbonate soda solution and sulfuric acid	Paper, wood, excelsior, cloth, and general combustible fires requiring cooling and quenching	Carry to fire, turn bottom up, and directly discharge to base of fire. Discharge range is 30 to 40 feet. A 25 gallon size lasts 50 to 55 seconds. Do not use on burning liquids or electrical fires; it will spread the fire or cause a deadly shock.
Foam 	Aluminum sulfate and bicarbonate of soda	Grease, oil gasoline, and paint fires	Carry to fire, turn bottom up, and direct discharge to base of fire. Discharge range is 30 to 40 feet. A 25 gallon size lasts 50 to 55 seconds.
Gas Cartridge 	Water and cartridge of carbon dioxide gas	Wood, paper, textile fires; gasoline, oil, anesthic, or organic solvent fires	Carry to fire, turn bottom up, bump, and directly discharge to base of fire. Discharge range is 30 to 40 feet. A 2 1/2 gallon size lasts 50 to 55 seconds.
Vaporizing Liquid	Carbon tetrachloride and other chemicals	Live, electrical fires	Carry to fire, turn handle, pump by hand, and direct discharge to base of fire. Discharge range is 20 to 30 feet. A 1 quart size lasts 40 to 45 seconds.

Simple First Aid

•In Case of an Accident or Illness...

1. Do not leave the person who has had an accident alone.
2. Call a teacher or supervisor for help.
3. Decide what type of help or assistance will be best.
4. If necessary, call a doctor or an ambulance.

REMEMBER: First aid is First Aid — what is done before emergency help arrives. It is never a substitute for medical care.

•To Restore Breathing...

1. Remove any foreign matter (gum, food, dirt) from victim's mouth.
2. Tilt the victim's head back.
3. Pinch the victim's nose shut between your thumb and finger.
4. Tightly cover victim's mouth with your mouth and blow into the victim's mouth. Keep blowing until you see the victim's chest rise.
5. Take you mouth away and listen for the victim to breathe out.
6. Watch to see that the chest lowers.
7. Repeat steps 4 and 5 until the person breathes alone or help arrives.

•To Stop Heavy Bleeding...

1. Cover the cut with a clean cloth or bandage and press hard.
2. If blood soaks through, add more cloths or bandages and press harder. Keep this up until help arrives.

•To Treat Shock...

A severe injury may cause a person to go into shock. The symptoms of shock are as follows:

- pale bluish skin
- moist and clammy skin
- weakness

- rapid pulse
- irregular breathing

Treatment: Keep victim warm and dry. Stay with the victim until medical help arrives.

•To Treat Choking...

NOTE: Do not use this procedure on a heart attack victim.
To determine whether a person is choking or having a heart attack, ask the victim a question. The choking victim cannot answer, the heart attack victim can.

use the Heimlich maneuver:

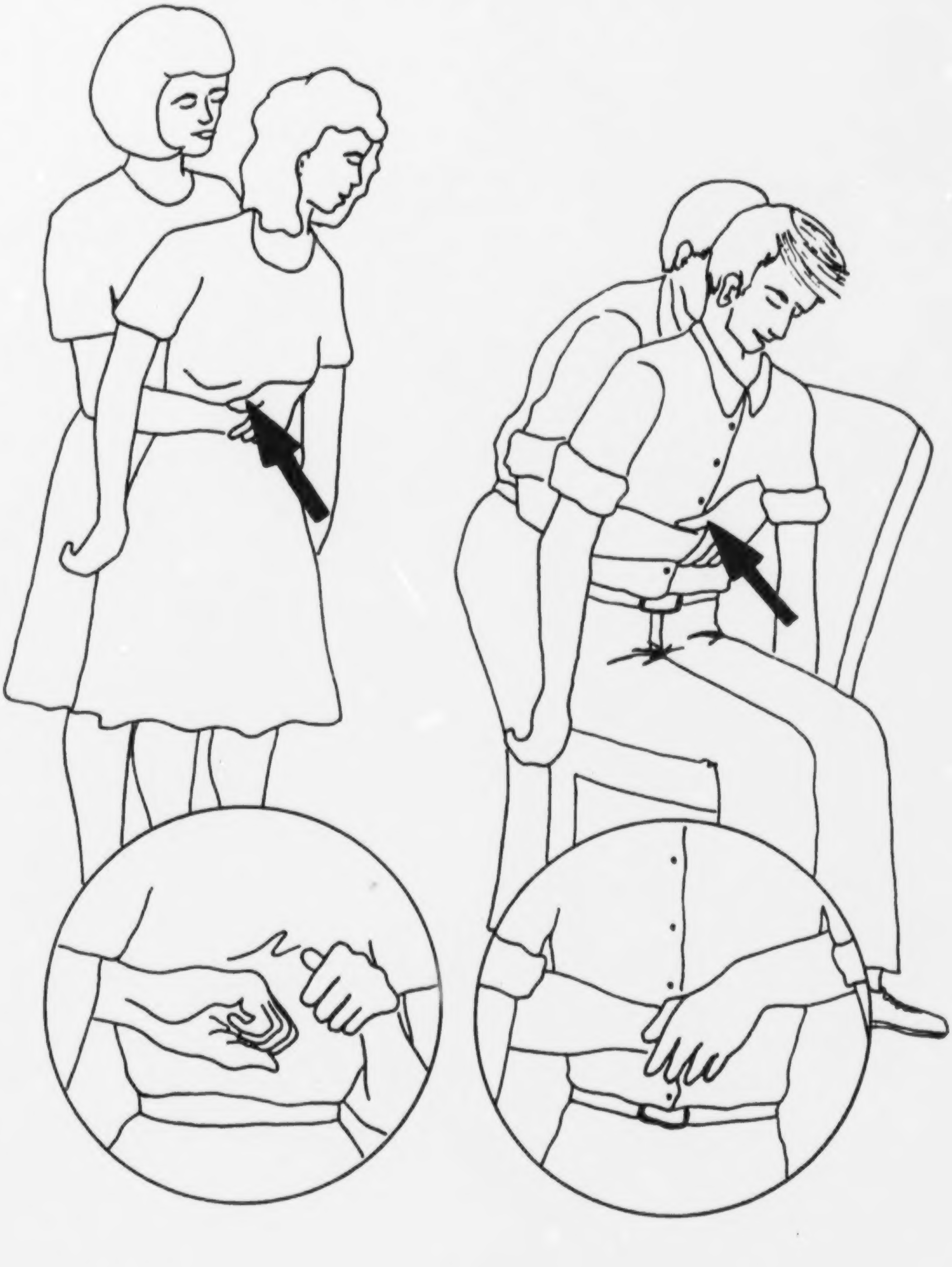
1. Stand behind the victim, put your arms around the victim's waist.
2. Place the thumbside of your fist on the victim's abdomen between the naval and the breastbone.
3. Place your other hand on your fist and press hard with an upward thrust. Repeat if needed. This should force the victim to cough out the item being choked on.

•To Treat Falls...

Injuries from falls may be minor or serious. If a person seems to be seriously injured from falling, keep the person warm and dry until medical help arrives. DO NOT move the victim.

TA 10

The Heimlich Maneuver



FIRST AID SUPPLIES

✚ First aid kits may be purchased completed or assembled by purchasing supplies and a storage box. A list of suggested supplies follows:

✚ STERILE GAUZE PADS (3" X 3" AND 2" X 2")

✚ GAUZE ROLL BANDAGE

✚ SMALL ADHESIVE BANDAGES

✚ BANDAGE COMPRESSES

✚ ADHESIVE TAPE (ONE OR TWO ROLLS)

✚ TRIANGULAR BANDAGE (30" X 40")

✚ SCISSORS

✚ TWEEZERS

✚ SAFETY PINS

✚ ELASTIC WRAP

✚ ASPIRIN OR ACETAMINOPHEN

✚ BAR OF PLAIN, UNSCENTED SOAP

✚ ICE BAG

✚ CALAMINE LOTION

✚ ANTISEPTIC CLEANSER (HYDROGEN PEROXIDE)

✚ THERMOMETER

✚ ANTISEPTIC CREAM

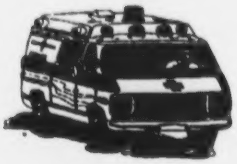
✚ ALCOHOL

✚ TOURNIQUET (LONG PIECE OF FABRIC)

✚ FLASHLIGHT (WITH EXTRA SEALED BATTERIES)

✚ TONGUE DEPRESSORS (CAN BE USED AS TEMPORARY splints)

EMERGENCY PROCEDURES



CALL THE AMBULANCE IF...

- The situation is life threatening
- The victim is unconscious
- There is a serious head, neck, or back injury
- Broken bones are obvious
- There is severe bleeding
- The victim has serious difficulty breathing
- The victim is in shock
- The victim contracts a sudden serious illness and cannot be easily moved

GO TO THE EMERGENCY ROOM IF...

- You are unsure about the seriousness of the situation
- Time is critical
- You are unable to reach your personal doctor

When in doubt of how serious an injury is, call a doctor or ambulance immediately! Be prepared to tell them the following:

- What has happened
- Where the victim is
- What has been done

Treating Burns

First-Degree Burns

are caused by slight sunburn, light contact with hot objects, or scalding by hot water or steam. The skin is slightly red, and there is slight swelling and pain.

Treatment: Immediately apply cool water or put burned area in cool water. Apply dressing if needed.

Second-Degree Burns

are caused by deep sunburn, contact with hot liquids, and flash burns from gasoline, kerosene, and similar products. They are deeper than first degree burns. The skin is more red, and blisters may develop. The swelling may also be greater and last longer.

Treatment: Place burned area in cool water until the pain is lessened. Apply clean cloths that have been soaked in ice water and wrung out. Blot the area dry. Apply a clean dry bandage. DO NOT break blisters or use any type of antiseptic.

Third-Degree Burns

are caused by contact with flames, hot water, or prolonged contact with hot objects. There is deep tissue damage along with a white or charred appearance.

Treatment: Arrange for immediate medical attention. DO NOT apply any water or ice. DO NOT apply any burn medication.

TA 14

First Report of Injury

1. IMMEDIATELY AFTER INJURY COMPLETE AND SEND ONE COPY TO THE MANAGER

Injured Person

2. Department Name ______
3. Name of injured ______ Social Security ______
4. Address ______ Town ______ Zip ______
Telephone ______ Telephone No. Friend or Relative ______
5. Speak English Yes ______ No ______
6. Age ______ Sex ______ Marital Status ______ Minor Children No. ______
7. Occupation when injured ______ Regular Occupation? Yes ______ No ______
8. How long employmed ______ Paid by (a) Month ______ (b) Hour ______
(c) Hours per day ______ (d) Days worked per week ______
(e) Hourly wage ______ (f) Monthly wage ______
(g) If work schedule is other than Monday through Friday, attach copy of work schedule. ______
9. Number if hours of sick leave credited to employee on day of injury ______

Time and Place

10. Date of injury Month ______ Day ______ 19 ______ Day of week ______ Hour of day ______
11. First day unable to work Month ______ Day ______ 19 ______
12. When did supervisor or employer first know of injury? Date ______
13. Name of Supervisor ______
14. Place where accident occurred (a) Building area ______ (b) State ______
(c) Town ______ (d) County ______ (e) Zip ______
Did account occur on university premises? Yes ☐ No ☐
Did accident occur at regular place of employment? Yes ☐ No ☐

Cause of Injury

15. Describe fully how accident occurred; state what employee was doing when injured ______
16. Was accident caused by injured's failure to use or observe safety applicance or regulation? Yes ☐ No ☐
(a) Name the safety appliance or regulation provided ______
(b) was it in use at time? ______
17. If injury caused by machine, tool, etc. — give name thereof ______
18. Names and addresses of witnesses ______

Nature of Injury

19. Describe injury or illness in detail: ______
(a) indicate part of body affected: ______
20. Name and address of physician ______
21. Name and address of hospital ______
22. Probable length of disability ______
23. Has injured returned to work, if so, date ______ (If no, file a supplemental report of injury when the employee returns to work)
24. Any change in wage or occupation due to injury ______

Fatal

25. If injured has died give date of death ______

Date of this report ______ Name of person completing report ______ Phone No. ______
Signed by ______ Official Title ______

Script on Personal Appearance

- ☞ Personal appearance is important.
- ☞ One of the first things customers see when they go out to eat is the appearance of the food service employees.
- ☞ First impressions can be lasting.
- ☞ If you are a waitperson, first impressions can last right up until the time the customer places the tip on the table.
- ☞ There are two main parts to personal appearance: good grooming and pleasant behavior.
- ☞ Showering daily is important for body hygiene.
- ☞ Using deodorant is important for body hygiene.
- ☞ Hands should be washed frequently.
- ☞ Teeth should be brushed twice a day.
- ☞ Fingernails should be clean , medium length, and not polished.
- ☞ Do not wear jewelry except a watch and/or a wedding band.
- ☞ Keep your hair clean, and choose a simple hairstyle.
- ☞ Wear appropriate makeup.
- ☞ Be friendly.
- ☞ Be courteous. Say, "Yes sir," "Yes ma'am," "Thank you," and "Please."
- ☞ Smile.
- ☞ If you are a waitperson display a pleasant manner when greeting customers.

TA 15

- Do not gather in a corner and gossip.
- Do not run.
- Do not point.
- Do not chew gum.
- Smoke only in designated employee smoking areas.
- Keep your eye on the restaurant guests. They may want assistance.

TA 15

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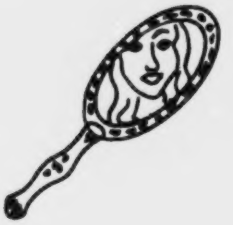
1



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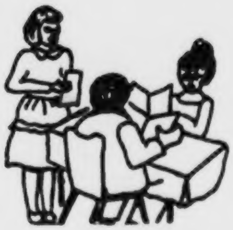

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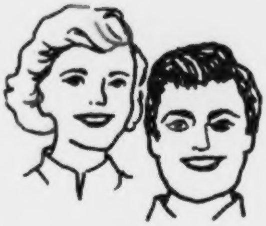

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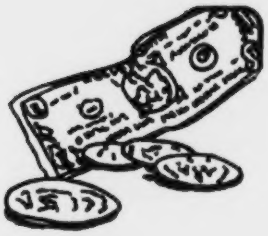

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Good Grooming
Pleasant Behavior

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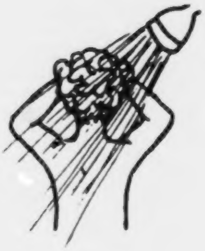

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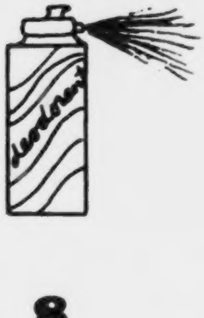

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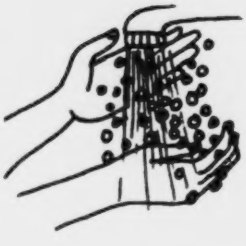

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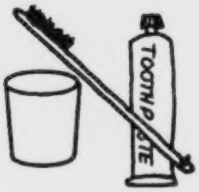
TOOTHPASTE

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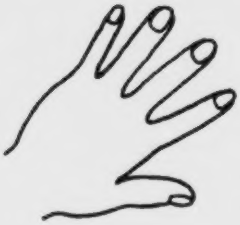

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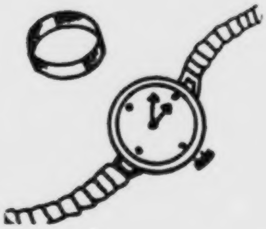

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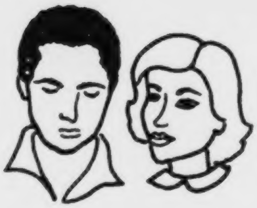

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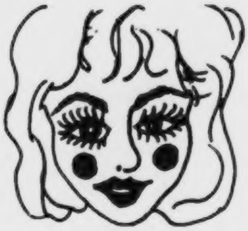

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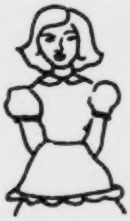

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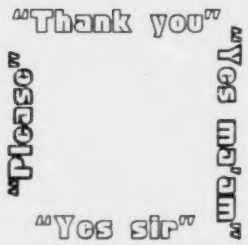
"Thank you"
"Yes ma'am"
"Yes sir"
"Please"

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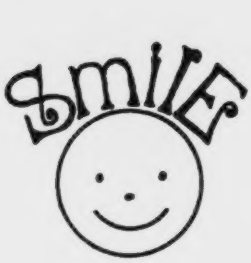

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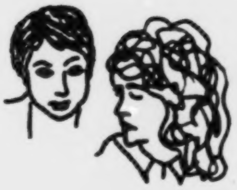

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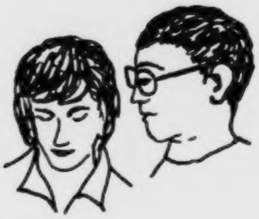
TA 15



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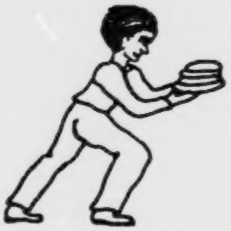

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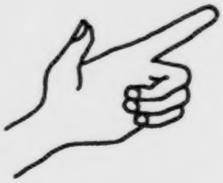

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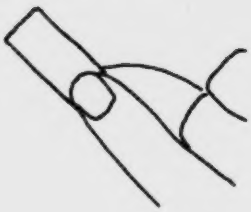

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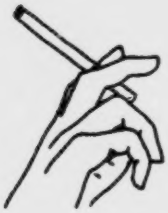

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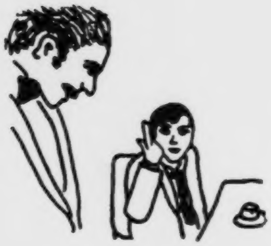

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Am I Well Groomed?

Directions: Each of the following case studies involves a food service employee who has either a good or a poor grooming habit. Decide whether each employee's grooming habit is appropriate or inappropriate for work. NOTE: Give each student a case study in which to react. Case studies should be tape recorded, if necessary.

1 Joe forgot to use deodorant after showering today. However, Joe says it is okay since he did use deodorant yesterday. Is Joe praticing good grooming habits? Why?

2 Mary Lou wet to a cosmetic shop for a free trial make-up before going to work. She asked for the "special evening look" which included dark eyeshadow, bright blusher, lipstick, and powder that sparkled. Mary Lou went straight to work at The Diner with her "special evening look." Was Mary Lou well groomed for her job? Why?

3 The only jewelry that Rosa wears to work at The Carriage Restaurant is a simple gold wedding band. Is Rosa's habit of wearing only her wedding band a good or poor grooming habit? Why?

4 Ki-Chang shaves each morning before going to work at The Forest Hills Restaurant. Why is Ki-Chang's habit of shaving each day a good or poor grooming habit? Why?

5 David, a busboy at Griggin's Cafeteria, brushes his teeth after each meal and at bedtime. Why is this a good grooming habit?

Am I Well Groomed? (Answers)

1. Not wearing deodorant each day is a poor habit. Deodorant that works should be used each day.

2. Evening make-up is not appropriate for work. Make-up for the job should be natural looking.

3. Wearing only a wedding band is a good habit. A lot of flashy jewelry is out of place in food service. NOTE: Some food service establishments do not even allow wedding jewelry.

4. Shaving each day is a good grooming habit. Ki-Chang's shaving practices allow him to look his best for guests.

5. Brushing one's teeth after meals and at bedtime is a good grooming habit. It promotes healthy teeth and fresh breath.

Is This a Good Personal Habit?

Directions: Each of the following stories involves a food service employee with good or poor personal habits. As a group, decide whether good or poor personal habits were shown. (Stories may be tape recorded.)

Case Study 1

Larry always washes his hands before he begins his job as a salad maker at Griffin's Cafeteria. Why is washing your hands before handling food a good personal habit?

Case Study 2

Maria has a horrible cold, but she decided to go to her job at Jack's Diner anyway. Why is going to work when you are ill not a good personal habit?

Case Study 3

Even though Kim smokes, she never smokes at her job at the Carriage Restaurant. Why is smoking on the job a poor personal habit?

Case Study 4

Jack scratched his face and continued to peel vegetables at the Chateau Restaurant. Why is touching your face while preparing food a poor personal habit?

Case Study 5

Carlos cut his hand, but he refuses to wear a bandage while he works as a dishwasher at the Green Garden Restaurant. Why is wearing a bandage over an open cut a necessary personal habit?

Case Study 6

Raoul went out to the storage house behind the Chateau Restaurant to get a can of cooking oil. He picked the can up from the floor and carried it into the restaurant. Then, without washing his hands, he began making salads. Why is washing your hands after picking up items off the floor a good personal habit?

Case Study 7

Juanita was slicing a piece of pie for a customer when she got some whipped cream from the pie on her fingers. She wiped her fingers on her apron and continued slicing the pie. Why is wiping your fingers on your apron not a good personal habit?

Is This a Good Personal Habit? (Answers)

1. Washing your hands before handling food is a good personal habit because it diminshes the chances of contaminating foods and spreading disease.

2. Going to work when you are ill is not a good habit because you can spread your illness to your coworkers as well as customers.

3. Smoking on the job is a poor personal habit because guests can smell the smoke on you, ashes may drop or be blown onto equipment or even food, and touching your face or lips is considered unsanitary in food service.

4. Touching your face or clothes while preparing food is not a good personal habit because it can encourage contaminated foods and spreading of disease.

5. Wearing a bandage over an open cut is a good personal habit. Any cuts or sores, no matter how small, should be bandaged and an accident report should be filled out. Even as a dishwasher, Carlos can contaminate the clean dishes and flatware that he is handling.

6. Washing your hands after picking up items off the floor is a good personal habit. You should always wash your hands after picking things up off the floor because with the constant traffic on floors, chances of the item on the floor being contaminated are likely. Also wash after touching things that might be dusty or dirty.

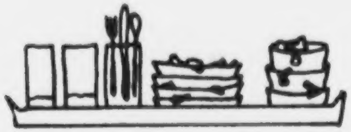
7. Wiping your fingers on your apron is not a good personal habit. You should wash your hands and dry them instead of wiping them on your apron. Wiping your hands on your apron does not really clean your hands. It does make your apron dirty.

Sanitary Method of Handwashing

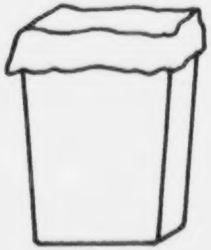
1. Use water as warm as the hands can comfortably stand.
2. Moisten the hands and apply a disinfectant soap. Lather well beyond the wrists as far as needed to remove dirt and soil.
3. Rub hands together briskly for about 20 seconds.
4. Pay careful attention to the areas between the fingers, knuckles, and around the nails. Use a brush for cleaning under the nails.
5. Rinse hands thoroughly under running water. Allow the water to flow from above, down the fingertips. This rinses contaminants off the hands rather than up the arms.
6. Dry hands and wrists thoroughly with a sanitary single-service towel or hot air dryer. Dispose of the paper towel in a provided container.
7. Do not touch anything that could contaminate your hands before returning to work.
8. Wash your hands often enough to keep them clean at all times.

Precleaning Dishes

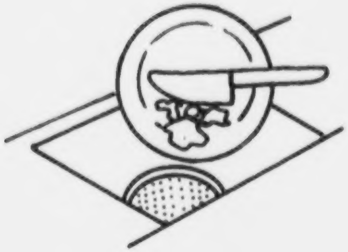
1. Gather dirty dishes.



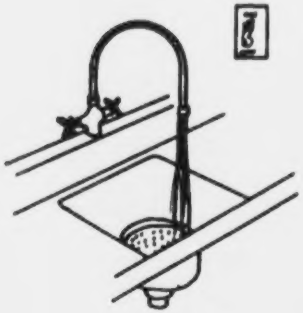
2. Put paper in trash can.



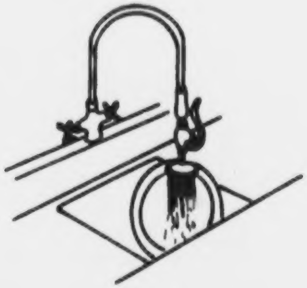
3. Scrape dishes into garbage disposer.



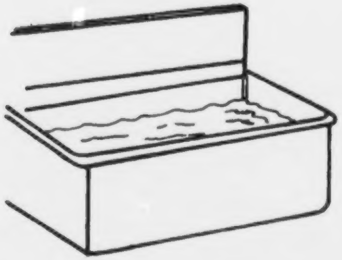
4. Run garbage disposer.



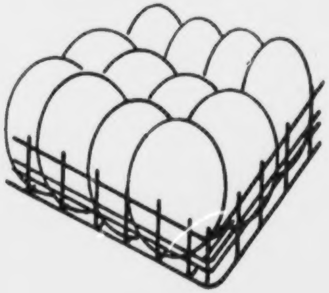
5. Rinse the dishes.



6. Presoak dishes if needed.



7. Rack dishes.



Dishes That are Sanitary are Free From...

⊞ visible soil, such as dried foods.

▦ stains such as coffee, tea, and lipstick.

▥ greasy film.

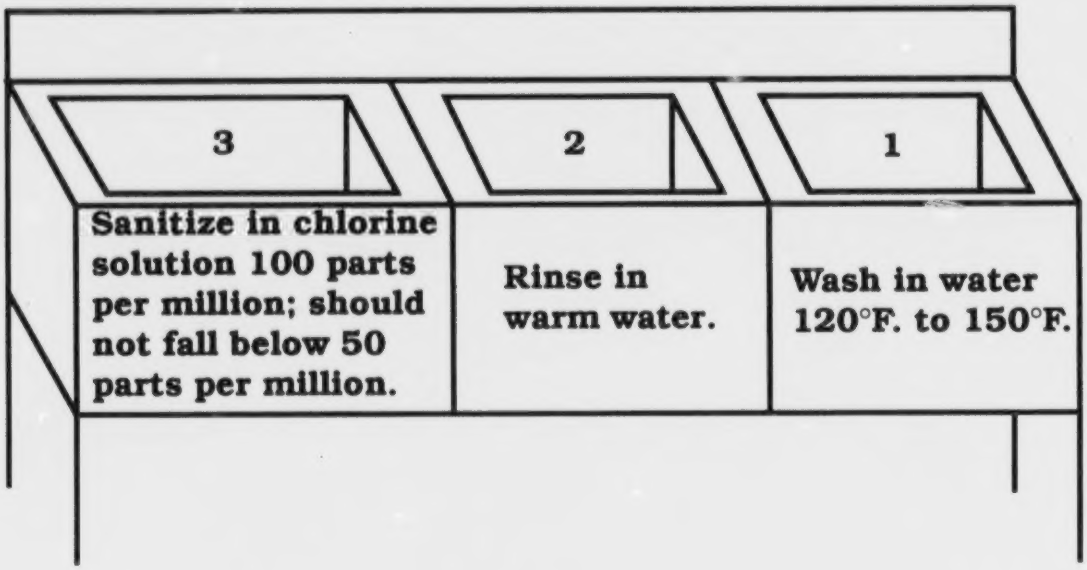
⊟ cracks and chips that harbor bacteria.

▤ bacteria.

TA 21

Sinks and Temperatures for Hand Dishwashing

Pots and Pans

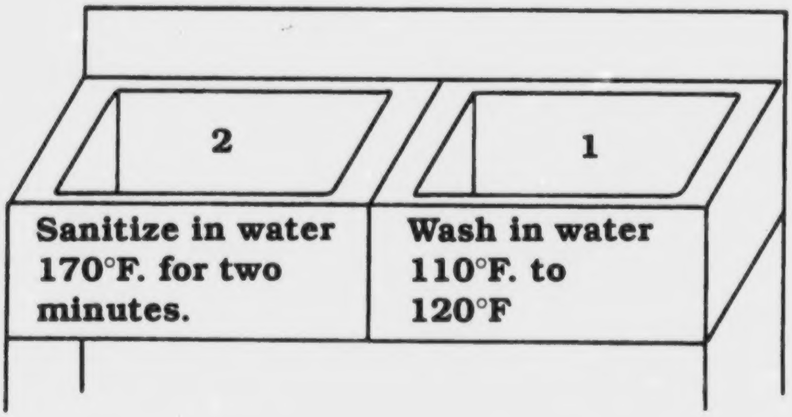


Sanitize in chlorine solution 100 parts per million; should not fall below 50 parts per million.

Rinse in warm water.

Wash in water 120°F. to 150°F.

Dishes



Sanitize in water 170°F. for two minutes.

Wash in water 110°F. to 120°F

Sanitary Methods to Clean Pots and Pans

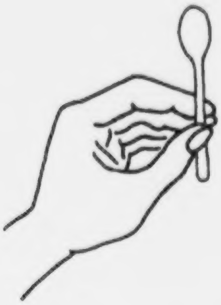
1. Assemble supplies and equipment. Get out fiber brush, wire brush, detergent, and sanitizing agent. Use a two- or three-compartment sink.
2. Fill first compartment of the sink with hot water (110-120°F).
3. Scrape pots and pans. Soak until time to wash them.
4. Drain first compartment, and fill with hot water (110-120°F.)
5. Measure the right amount of detergent. (Follow the package directions.) Add detergent.
6. Wash pots and pans, using a clean fiber brush.
7. Change water if needed to keep it at 100°F.
8. Scrub burned pots and pans with a wire brush.
9. Rinse pots and pans in warm water in second sink. Change water often to keep it free of detergent.
10. Sanitize in rinse section if using a two-compartment sink. Hold pots and pans in 170°F. water for 2 minutes.
11. Fill the second compartment of the three-compartment sink with clean hot water to cover pots and pans.
12. Place pots and pans in 170° F. water for 2 minutes to sanitize, or in 212°F. water for 30 seconds.
13. Use chlorine bleach as sanitizing agent, if desired. (Follow directions on bottle.)
14. Sanitize pots and pans that are too large to be covered with water in the third-compartment by hosing with live steam or boiling water or by spraying or swabbing with a chlorine solution.

15. Remove pots and pans from hot water.

16. Drain pots and pans. Air-dry on a rack or clean surface. DO not towel dry.

17. Store pots and pans upside down on shelves or cover to protect.

Handling Clean Dishes

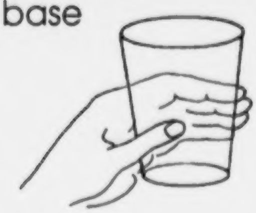


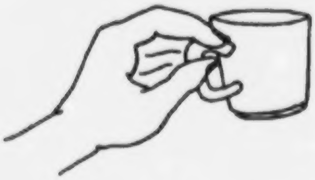
Flatware

Carry flatware
by the handle

Glassware

Hold glasses at
base



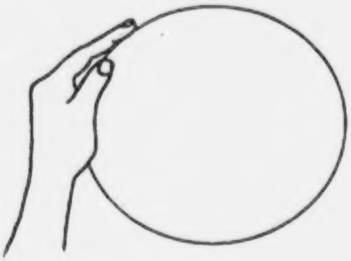


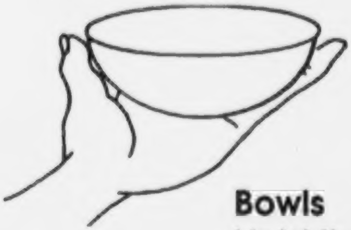
Cups

Hold cups by
the handle

Plates

Hold plates
by rim only





Bowls

Hold the outer
area of bowl only

Cleaning Procedures

Dining Tables, Counters, Bar Tops, Chairs, and Stools

1. When the guest leaves his seat, clear away dishes, glasses, flatware and trash.
2. Wipe area, including edges of furniture and chair seats, with clean towel wrung out in sanitizing solution.
3. Check ashtrays, salt and pepper shakers, and sugar containers. Wipe these items clean.
4. Wipe all surfaces with a clean, dry, cloth.
5. Rinse towels in solution often.
6. Keep towels clean. Change them often.
7. Each day, spray a cleaning and sanitizing agent on surfaces. Wipe clean and dry.

Loading Dock

1. Sweep up and remove all loose trash.
2. Apply hot sanitizing solution to floor areas and to garbage can exteriors, steps, and ramps.
3. Let solution stand 5 minutes.
4. Spray/rinse with clear hot water.

Walls--Tile, Block, and Plaster

1. Wipe clean with a warm solution of cleaner.
2. Clean areas such as light switches that come in contact with hands.
3. Clean areas soiled by splashing solutions and waste materials.
4. Let surfaces air dry.
5. If walls are heavily soiled, rinse with clean water, and allow to air dry.

Finished Wood Paneling

1. Wipe clean with clean cloth wrung out in all-purpose cleaning solution.
2. Wipe dry with a clean, dry cloth.

Floors

1. Clear floors of all movable objects.
2. Sweep to remove loose soil.
3. Mop with a disinfectant solution.
4. Rinse mop.
5. Rinse floor, changing water frequently.

*See *Food Production, Management , and Services* for instructions concerning specific floor finishes.

Efficiently Cleaning the Floor

1. Use two buckets — one filled with clean warm water and one filled with water to which a synthetic detergent has been added.

2. Dip the mop into the bucket with detergent, and wring out until partially dry.

3. Start about two feet from the baseboard, and then make a long stroke close to the baseboard. Use a figure eight motion as you mop. To remove any stubborn spots, use the heel of the mop.

4. Mop an area about 9x12 feet; then rinse the floor and let dry.

5. Change cleaning solution and rinse water often.

6. When the job is completed, clean the equipment and store it in specified areas.

Destroying and Repelling Pests

- Keep all windows and doors shut.
- Maintain proper sanitation and housekeeping inside and outside of the establishment.
- Spray inside and outside with pesticide.
- Eliminate the presence of rodents.
- Clean garbage cans and keep them covered.

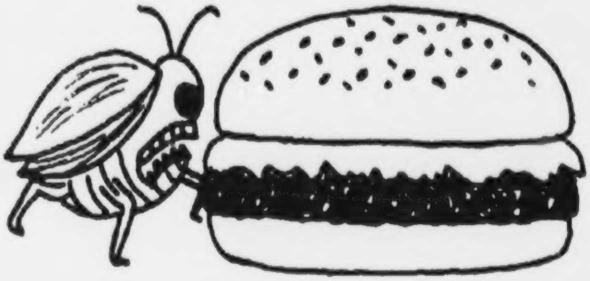
Food Contamination

Food may be contaminated by...

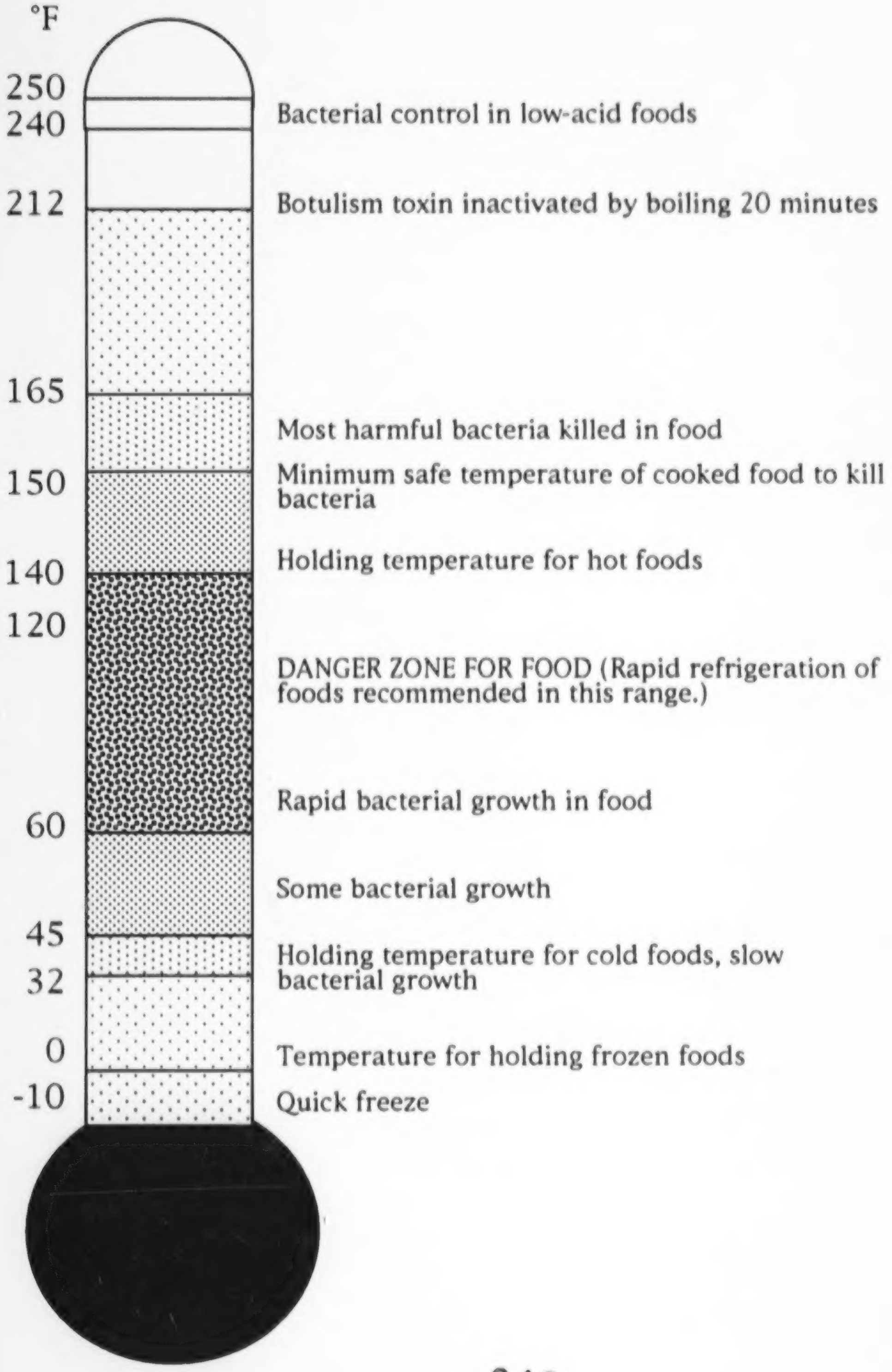
- *chemicals.*
- *physical matter, such as dirt or dust.*
- *animals.*
- *microbiological organisms, such as bacteria, viruses, yeasts, and molds.*

Food may be infected by...

- *a person who sneezes or coughs.*
- *hands that have not been washed properly. (Wash at least once an hour to be safe.)*
- *fingernails which have not been cleaned properly.*
- *the use of hands instead of the proper utensil.*
- *dishes, sinks, and equipment which are not sanitized properly.*
- *employees who are ill.*
- *persons with cuts or infections on their hands.*
- *leakage of sewage lines or unsanitary restroom conditions.*
- *certain chemicals.*
- *hair that is not contained.*
- *dust on equipment, floors, and counters.*
- *plants.*
- *contaminated rags and sponges.*
- *failure to properly refrigerate potentially hazardous foods.*

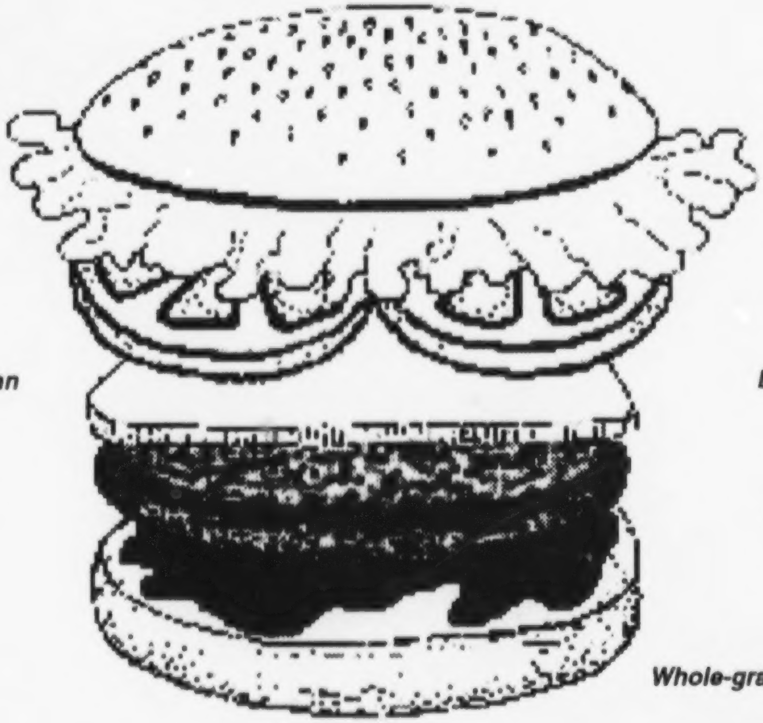


Temperatures for Keeping Food Safe


°F
250
240
Bacterial control in low-acid foods
212
Botulism toxin inactivated by boiling 20 minutes
165
Most harmful bacteria killed in food
150
Minimum safe temperature of cooked food to kill bacteria
140
Holding temperature for hot foods
120
DANGER ZONE FOR FOOD (Rapid refrigeration of foods recommended in this range.)
Rapid bacterial growth in food
60
Some bacterial growth
45
32
Holding temperature for cold foods, slow bacterial growth
0
Temperature for holding frozen foods
-10
Quick freeze

TA 29

What's in a Cheeseburger



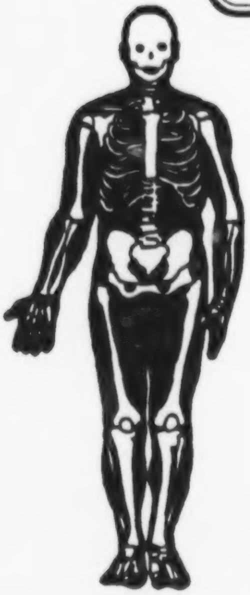
This ?	*or*	*This ?*
Plain Bun		
Lettuce		***Leafy Lettuce***
Tomato		***Tomato***
Processed American Cheese		***Low-fat Mozzarella Cheese***
Hamburger Patty		***Lean Hamburger Patty***
Mayonnaise		***Mustard***
Plain Bun		***Whole-grain English Muffin***

DIRECTIONS:

For the most nutritious cheeseburger, which ingredients would you select? Circle them above. On the chart below, list the ingredients you chose for the cheeseburger, the food group each represents, and the main nutrient(s) provided by that food.

Cheeseburger Ingredients	**Food Group**	**Main Nutrient(s)**
1. ______________	______________	______________
2. ______________	______________	______________
3. ______________	______________	______________
4. ______________	______________	______________
5. ______________	______________	______________

Functions of Nutrients



Protein, Calcium,
Water, Phosphorous,
Vitamins A,C,D,E

Water carries nutrients to body cells.

Protein promotes growth and builds cells, tissues, muscles, and bones.

Carbohydrates provide energy.

Fats provide energy and carry fat-soluble vitamins.

Calcium builds strong bones and teeth.

Phosphorous helps calcium work.

Vitamin D is needed for using calcium and phosphorous.

Vitamin C aids in healing wounds and builds healthy bones, teeth, blood vessels, and other tissues.

Vitamin A promotes good vision, healthy skin, strong bones, and aids in healing wounds.

Vitamin E preserves cell tissues.

Vitamin K helps blood clotting.

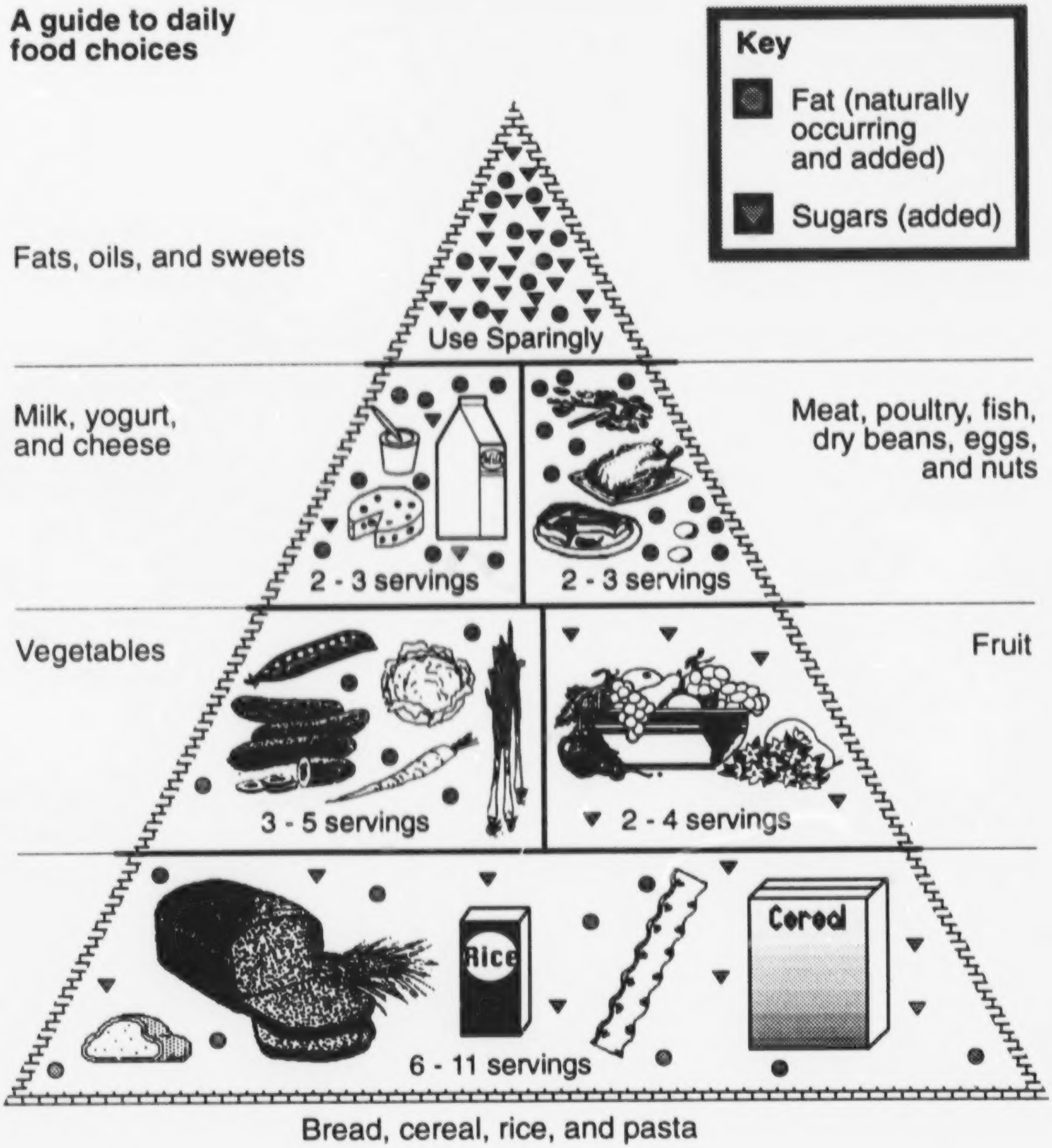
Iron carries oxygen to the blood.

Protein, Water,
Fats, Carbohydrates,
Vitamins A,C,E

Protein, Water, Iron,
Vitamins A,C,E,K

Food Guide Pyramid

A guide to daily food choices


Key
● Fat (naturally occurring and added)
▼ Sugars (added)
Fats, oils, and sweets
Use Sparingly
Milk, yogurt, and cheese
2 - 3 servings
2 - 3 servings
Meat, poultry, fish, dry beans, eggs, and nuts
Vegetables
3 - 5 servings
2 - 4 servings
Fruit
Rice
Cereal
6 - 11 servings
Bread, cereal, rice, and pasta

Adapted from: "The Food Guide Pyramid," Home and Garden Bulletin No. 252, United States Department of Agriculture Human Nutrition Information Service. Reprinted from *Skills for Life* Unit 2, Module D(20).

Nutrition and Your Health:

Dietary Guidelines for Americans

1 Eat a variety of foods.
People need more than forty different nutrients for good health. Essential nutrients include vitamins, minerals, amino acids from protein, certain fatty acids from fat, and sources of calories (protein, carbohydrates, and fat). These nutrients should come from a variety of foods, not from a few highly fortified foods or supplements. Get the nutrients needed by choosing different foods you enjoy eating from the five major food groups. These groups are vegetables, fruits, grain products, milk and milk products, and meats and meat alternatives.

2 Maintain desirable weight.
Overweight or underweight persons have an increased chance of developing health problems. Being too overweight is common in the United States. It is linked with high blood pressure, heart disease, stroke, the most common type of diabetes, certain cancers, and other types of illness.

3 Choose a diet low in fat, saturated fat, and cholesterol.
The higher levels of saturated fat and cholesterol in the diet are linked to increased risk for heart disease. A diet low in fat makes it easier to include the variety of foods you need for nutrients without exceeding your calorie needs because fat contains over twice the calories of an equal amount of carbohydrates or protein.

4 Choose a diet with plenty of vegetables, fruits, and grain products.
Vegetables, fruits, and grain products are important parts of a varied diet. They are emphasized in this guideline especially for their complex carbohydrates, dietary fiber, and other food components linked to good health.

5 Use sugars only in moderation.
Sugars and many foods that contain them in large amounts supply calories with limited nutrients. Thus, they should be used in moderation by most healthy people and sparingly by people with low calorie needs. The more often these foods, even small amounts, are eaten, the greater the risk for tooth decay.

6 Use salt and sodium only in moderation.
Table salt contains sodium and chloride; both are essential in the diet. However, most Americans eat more salt and sodium than they need. In the United States, about one in three adults has high blood pressure. Reducing salt and sodium in the diet helps lower blood pressure levels.

7 Avoid alcoholic beverages.
Drinking alcohol beverages is illegal in Texas for people under the age of twenty-one. Heavy drinking of alcoholic beverages is related to malnutrition, liver disease, and some forms of cancer. Drinking alcoholic beverages during pregnancy can damage the developing fetus. People who drink alcoholic beverages before driving increase their risk of car accidents.

Adapted from: "Nutrition and Your Health: Dietary Guidelines for Americans," 3rd ed., 1990, *Home and Garden Bulletin* No. 232, U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines and Your Diet: Home Economics Teacher's Guide*, U.S. Department of Agriculture and Human Nutrition Information Service. Reprinted from *Skills For Life* Unit 2 Module D(19).

School Lunch Patterns for Various Age/Grade Groups

U.S. Department of Agriculture, National School Lunch Program
USDA recommends, but does not require, that you adjust portions by age/grade group to better meet the food and nutritional needs of children according to their ages. If you adjust portions, Groups I-IV are minimum requirements for the age/grade groups specified. If you do not adjust portions, the Group IV portions are the portions to serve all children.

		Minimum Quantities				Recommended Quantities[2]	
Components		**Preschool** ages 1-2 (Group I)	ages 3-4 (Group II)	**Grades K-3** ages 5-8 (Group III)	**Grades 4-12**[1] age 9 & over (Group IV)	**Grades 7-12** age 12 & over (Group V)	**Specific Requirements**
Meat or Meat Alternate	A serving of one of the following or a combination to give an equivalent quantity						• Must be served in the main dish or the main dish and one other menu item. • Vegetable protein products, cheese alternate products and enriched macaroni with fortified protein may be used to meet part of the meat/meat alternate requirement. Fact sheets on each of these alternate foods give detailed instructions for use.
	Lean meat, poultry, or fish (edible portion as served)	1 oz	11/2 oz	11/2 oz	2 oz	3 oz	
	Cheese	1 oz	11/2 oz	11/2 oz	2 oz	3 oz	
	Large egg(s)	1/2	3/4	3/4	1	11/2	
	Cooked dry beans or peas	1/4 cup	3/8 cup	3/8 cup	1/2 cup	3/4 cup	
	Peanut butter	2 Tbsp	3 Tbsp	3 Tbsp	4 Tbsp	6 Tbsp	
Vegetable and/or Fruit	Two or more servings of vegetables or fruit or both to total	1/2 cup	1/2 cup	1/2 cup	3/4 cup	3/4 cup	• No more than one-half of the total requiremnt may be met with full-strength fruit or vegetable juice. • Cooked dry beans or peas may be used as a meat alternate or as a vegetable but not as both in the same meal.
Bread or Bread Alternate	Servings of bread or bread alternate A serving is • 1 slice of whole-grain or enriched bread • A whole-grain or enriched biscuit, roll, or mufin • 1/2 cup of cooked whole-grain or enriched rice, macaroni, noodles, whole-grain or enriched pasta products, or other cereal grains such as bulgur or corn grits • A combination of any of the above	5 per week	8 per week	8 per week	8 per week	10 per week	• At least 1/2 serving of bread or an equivalent quantity of bread alternate for Group I, and 1 serving for Groups II-V must be served daily. • Enriched macaroni wirh fortified protein may be used as a meat alternate or as a bread alterante but not as both in the same meal. NOTE: Food Buying Guide for Child Nutrition Programs (1983) provides the information for the minimum weight of a serving.
Milk	A serving of fluid milk	3/4 cup (6 fl oz)	3/4 cup (6 fl oz)	1/2 pint (8 fl oz)	1/2 pint (8 fl oz)		At least one of the following forms of milk must be offered: • Unflavored lowfat milk • Unflavored skim milk • Unflavored buttermilk NOTE: This requirement does not prohibit offering other milks, such as whole milk or flavored milk, along with one or more of the above.

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[1] Group IV is highlighted because it is the one meal pattern which will satisfy all requirements if no portion size adjustments are made.

[2] Group V specifies recommended, not required, quantities for students twelve years and older. These students may request smaller portions, but not smaller than those specified in Group IV

U.S. Department of Agriculture. *Menu Planning Guide for School Food Service*. Washington, D.C.: U.S. Government Printing Office, 1993

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Therapeutic Diets

DIRECTIONS: The following activity will help the care provider describe the most commonly used modified and therapeutic diets. Place the letter of the diet most appropriate for the health problem in the blanks provided.

_____1. A person who needs to lose weight
   a. fat-restricted diet
   b. calorie-controlled diet
   c. liquid diet
   d. calorie-restricted diet

_____2. A person who is having a hard time chewing or swallowing
   a. soft diet
   b. sodium-restricted diet
   c. liquid diet
   d. bland diet

_____3. A person who has heart problems or toxemia
   a. fat-restricted diet
   b. diabetic diet
   c. bland diet
   d. sodium-restricted diet

_____4. A person with internal problems or following a full-liquid diet
   a. bland diet
   b. soft diet
   c. fat-restricted diet
   d. liquid diet

_____5. A person who wants to practice weight maintenance
   a. calorie-restricted diet
   b. fat-restricted diet
   c. calorie-controlled diet
   d. diabetic diet

_____6. A person who is too weak to chew
   a. liquid diet
   b. soft diet
   c. sodium-restricted diet
   d. bland diet

_____7. A person who must restrict amounts and types of protein, fat, and carbohydrates (Also sometimes used for weight reduction.)
   a. calorie-restricted diet
   b. calorie-controlled diet
   c. fat-restricted diet
   d. diabetic diet

Answers: 1-d 2-c 3-d 4-a 5-c 6-b 7-d

Menu Form for Modified Diets

	Regular Diet	**Soft**	**Calorie-Restricted**	**Bland**
Breakfast	orange juice cream of wheat scrambled eggs toast jelly milk coffee	orange juice cream of wheat soft-cooked egg* toast jelly milk	orange juice cream of wheat soft-cooked egg* toast - 1 slice* jelly milk - skim*	orange juice cream of wheat soft-cooked egg* toast jelly milk
Lunch	baked ham glazed sweet potato buttered peas endive salad with French dressing bread margarine pineapple ice cream	beef patty* mashed potato* buttered peas bread margarine vanilla ice cream	baked ham plain peas* endive salad with lemon wedge* bread - 1/2 slice* margarine cantaloupe*	beef patty* glazed sweet potato pureed peas* bread margarine vanilla ice cream*
Supper	vegetable soup poached egg buttered spinach rolls margarine date bars milk	vegetable soup poached egg buttered spinach sliced tomato salad bread* margarine baked custard* milk	vegetable soup sliced chicken* buttered spinach sliced tomato salad bread - 1 slice* margarine peaches* milk - skim*	vegetable soup sliced chicken* pureed spinach* sliced tomato salad bread* margarine peaches* milk

*Represents any deviation from the Regular Diet.

Source: U.S. Department of Health and Human Sciences. *A Guide to Nutrition and Food Service.* (Out of Print) Washington, DC: Government Printing Office, 1971.

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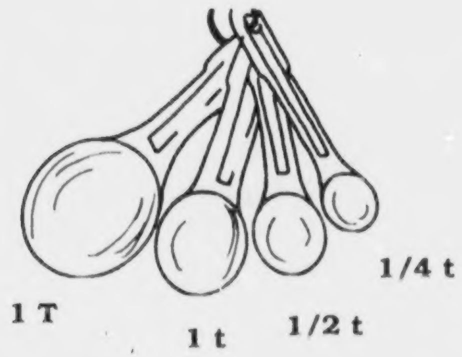
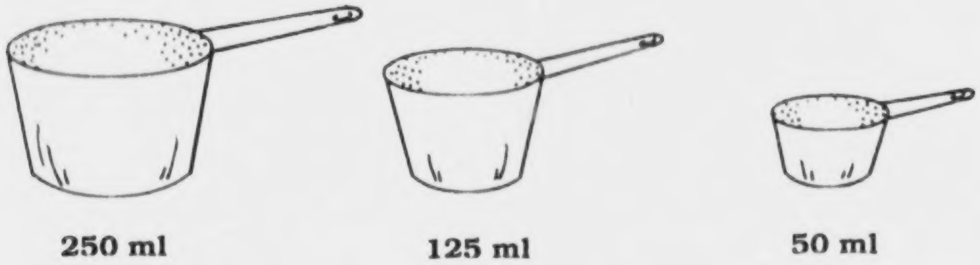
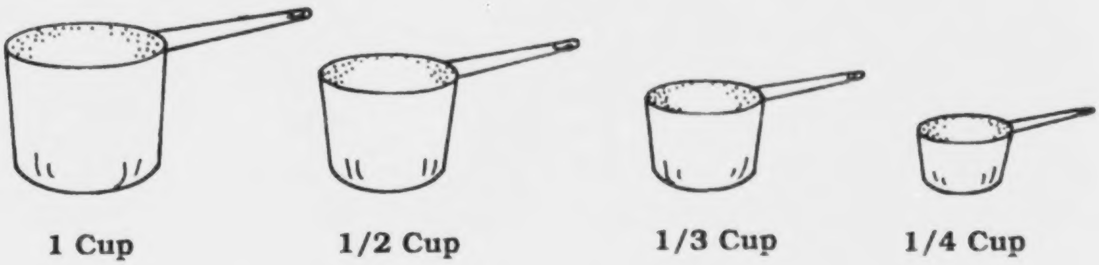
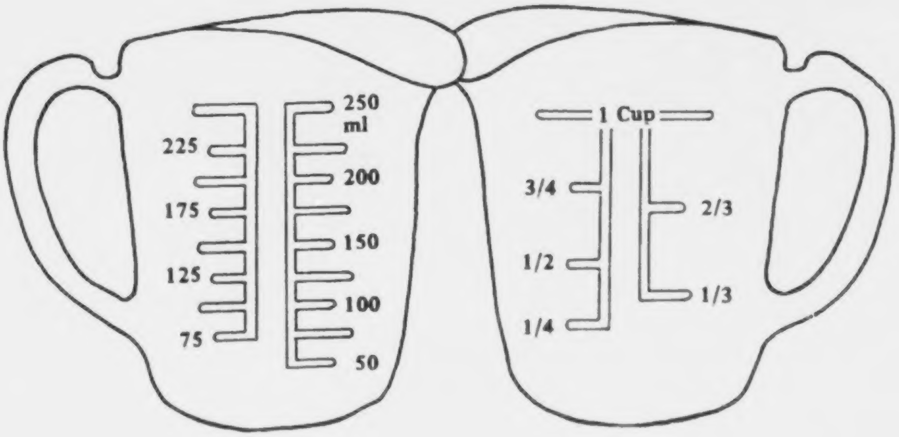
Measuring Equipment


1 T
1 t
1/2 t
1/4 t


250 ml
125 ml
50 ml


1 Cup
1/2 Cup
1/3 Cup
1/4 Cup


250 ml
225
200
175
150
125
100
75
50
1 Cup
3/4
2/3
1/2
1/3
1/4

Fun with Measurements

(Teacher Information Sheet)

Number of Players: Any number

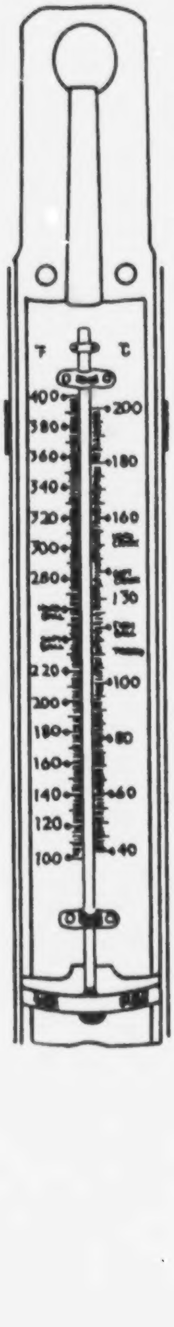
Objective: To demonstrate knowledge of correct use of measuring equipment.

Divide the class into two teams. As you name a food the first person on the first team tells if a dry measuring cup or a liquid measuring cup should be used with that particular food. If he or she answers correctly that team receives one point. If he or she does not answer it correctly the other team has a chance to win that point. The game can be stopped at any time. The team with the most points wins the game.

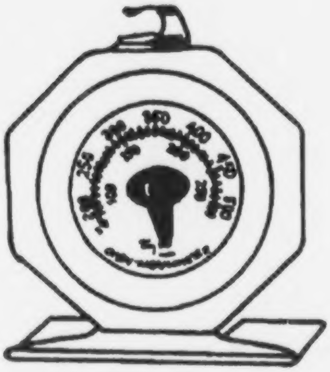
Listed below are some suggested foods to use:

brown sugar
cereal
chocolate chips
corn meal
corn syrup
flour
granulated sugar
milk
oatmeal
raisins
rice
shortening
tea

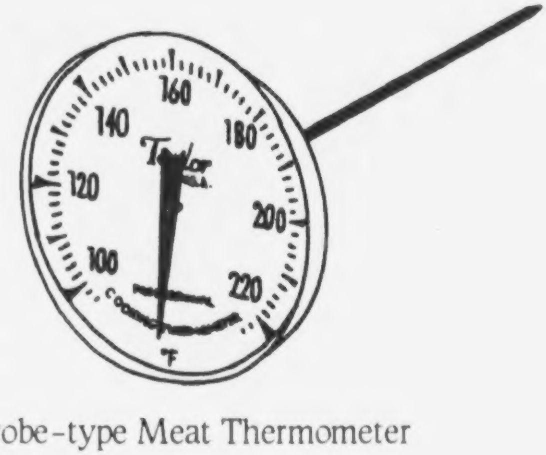
Types of Thermometers


°F
°C
400
380
360
340
320
300
280
220
200
180
160
140
120
100
200
180
160
130
100
80
60
40

Confectionery Thermometer



Oven Thermometer


160
140
180
Taylor
120
200
100
220
°F

Probe-type Meat Thermometer

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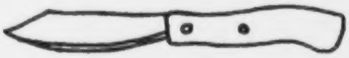
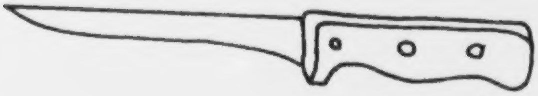
Cutting Devices

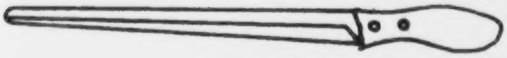
Paring Knife



Boning Knife

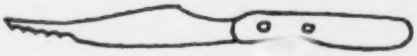


Chef's Steel (Magnetized)

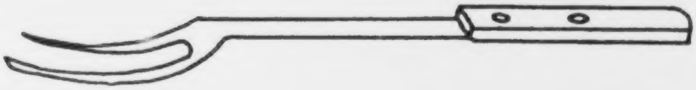


French Cook's Knife

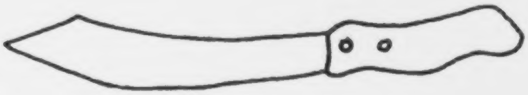
Table Steak Knife



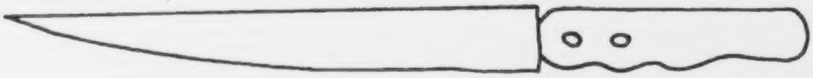
Carving Fork



Carving Knife



Butcher Knife



Safety Practices in Using Cutlery

❀ Proper use and care of knives is an important factor in keeping them in good condition. The following are some guidelines for using knives:

✓ Use the correct knife for a particular job.

✓ Use a cutting surface (cutting board/table) whenever possible.

✓ Always wash and wipe a knife from the back of the blade, being sure that your fingers do not extend to the cutting edge.

✓ Do not put a knife into water where it is not easily seen.

✓ When carrying a knife, hold it with the point downward.

✓ Do not use a knife as a lever to pry jar lids off or for other similar purposes.

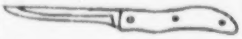
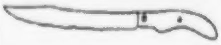
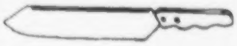
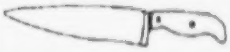
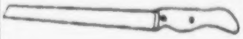
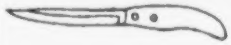
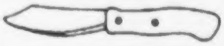
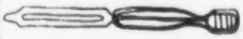
✓ Do not use a knife for cutting paper, string, or for sharpening pencils.

✓ If it is used effectively and thoughtfully, a sharp knife is safer than a dull knife.

✓ Knives stored in racks or in slots in drawers can be picked up with more safety than those which are thrown into a drawer.

✓ Do not use a knife to turn food, such as hamburger patties, steaks, pork chops, or pancakes.

Most Common knives and Their Uses

Knife	**Description**	**Use**
Boning Knife 	5 to 6 inch blade made of stainless or carbon steel; wooden or plastic handle	Disjointing fowl, separating meat from bone, dicing raw meats, coring lettuce
Bread Knife 	9 inch blade with serrated edge	Slicing bread or cake
Butcher Knife 	Slightly curved, heavy, rigid blade with a blunt tip	Disjointing fowl; preparing spareribs, pork loin; cutting brisket, short ribs from rib roast, chuck roast, rump; cutting lobster, crawfish; scaling fish; removing head of fish; cutting sweet potatoes, cabbage, watermelon, squash
French Knife 	8 to 12 inch blade of carbon or stainless steel	Slicing and cutting raw fruits and vegetables; slicing hot or warm meat; chopping small quantities of materials, such as parsley, onions, and nuts; dicing and mincing ingredients
Slicer 	10 to 16 inch carbon or stainless steel blade, which may be serrated; wooden or plastic handle	Slicing tomatoes, lettuce wedges, slicing roast or ham; cutting cakes or sandwiches
Fruit and Salad Knife 	5 1/2 to 6 inch stainless steel blade	Coring lettuce; paring and sectioning fruits
Paring Knife 	3 to 3 1/2 inch blade of carbon stainless steel	Paring fruits and vegetables; removing eyes from potatoes
Peeler 	6 inch floating blade	Slicing thin strips of fruits and vegetables; peeling fruits and vegetables

❣ Knives which are kept sharp are both easier and safer to use. Less pressure is required when the knife is sharp, and there is less danger that the knife will slip.

Practices to follow that will help to keep knives sharp are listed below:

- Wash knives by themselves, rather than with other utensils.
- Place knives in the dishwashing sink with the handles together and the blades pointed in the same direction.
- Dry each knife separately and store in knife rack or specified place in the drawer.
- Use only for cutting and slicing, not for prying lids or cans open.

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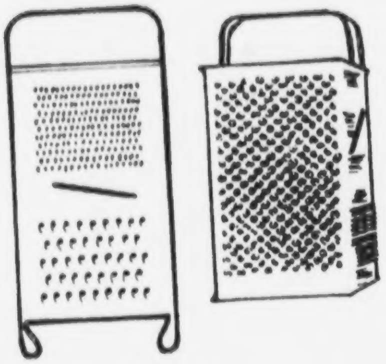
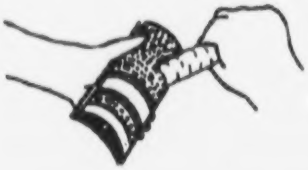
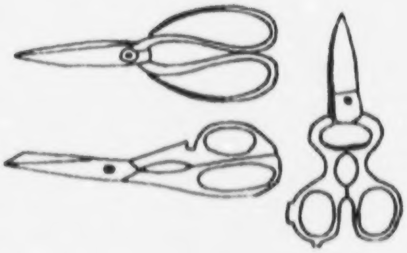
Other Cutting Tools

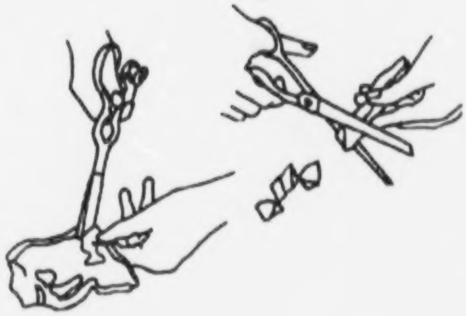


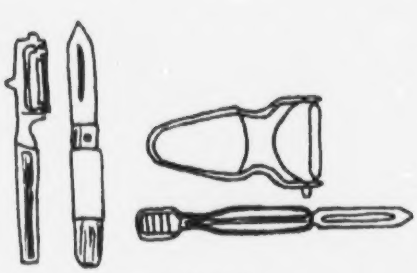
Graters



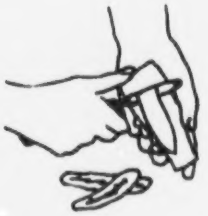


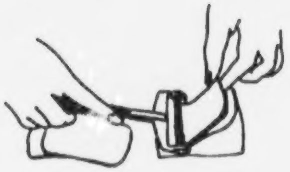
All-purpose Scissors



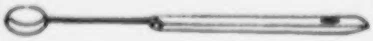
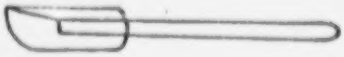
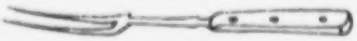
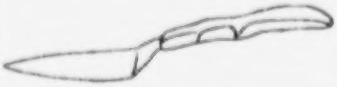
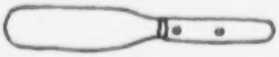
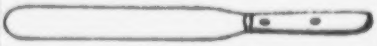
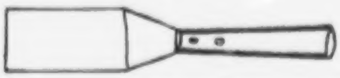


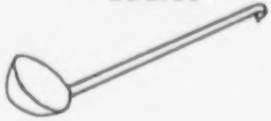
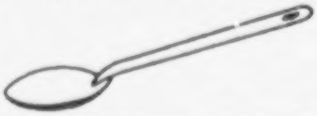
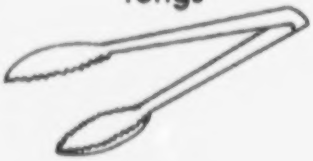
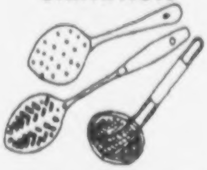
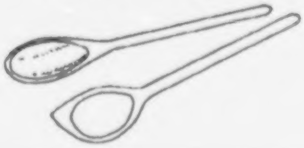
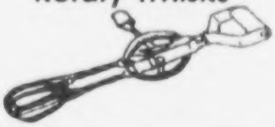
Peelers



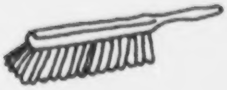


Food Handling Tools

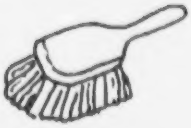
Melon Ball Scoop 	Stainless blade formed into half-ball cup	Cutting various fruits and vegetables into small balls
Scraper 	9 1/2 or 13 1/2 inches in length; molded rubber attatched to wooden or plastic handle	Folding and blending ingredients; scraping dishes, bowls, and plates (Do not use in hot pots; the rubber melts.)
Wire Whip 	10, 12, or 16 inches in length; stainless steel or chrome	Stirring and whipping ingredients, incorporating air into ingredients (more effective than rotary beater or mixer) eliminating lumps in ingredients
Cook's, Utility, or Kitchen Fork 	8 to 14 inches in length; steel tines riveted to wooden handle	Turning and handling roasts, holding meats while slicing
Pie Knife or Server 	6 inch length flat area 4 inches by 2 inches	Removing pieces of pie from pan
Sandwich Spreader 	3 1/2 inch blade, which may be serrated	Spreading fillings on sandwiches
Spatula 	8 to 12 inches in length, has medium flexibility	Leveling ingredients in measuring spoons or cups, spreading large areas of foods
Hamburger Turner 	6 inch blade of stainless steel	Turning hamburgers or other meat patties

Ladles 	Variety of sizes from 1 to 30 oz.	Portioning liquids such as gravies, salad dressings, soups, and sauces; be sure to use the correct size
Long-handled Spoon 	11 to 15 inches in length, stainless steel, either solid, slotted, or pierced	Serving or stirring foods, serving foods which need to be drained
Pastry Brush 	Sterilized bristles held in place by rubber strip	Spreading melted butter or sauce on some food products
Tongs 	9 to 12 inches in length	Handling food products such as ice cubes and rolls without touching them with hands, lifting and turning meats and vegetables
Slotted Spoons and Skimmers 		Lift foods out of the liquid, remove scum, grease, or other items from the top of stocks, gravies, and other liquids. Lift foods out of hot liquids.
Wooden Spoons 		Stirring, mixing, creaming, tossing, folding, and serving; stirring food in deep pots and steam kettles
Rotary Whisks 		Beating small quantities of eggs or batter

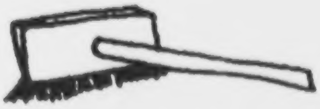
Types of Brushes



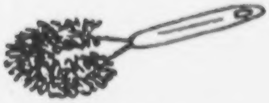
Bench Brush



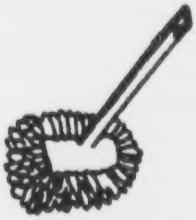
Pot Brush



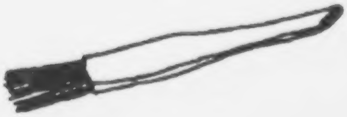
Oven Brush and Scraper



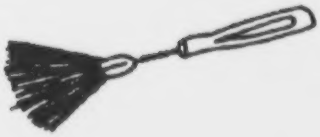
Vegetable Brush



Kettle Brush



Pastry Brush

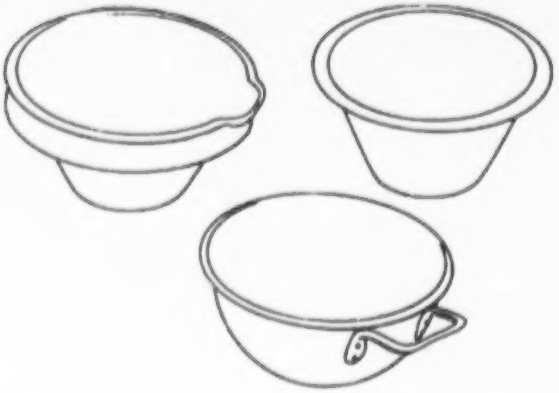


Grease Brush

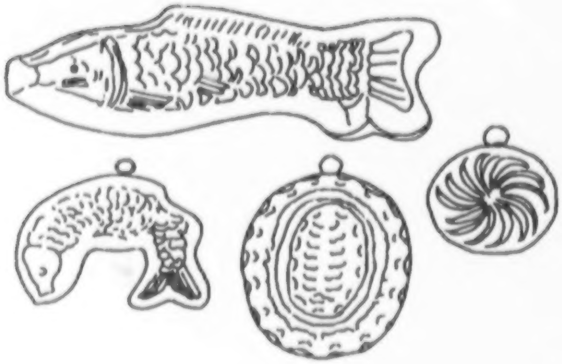
TA 45

Bowls and Molds

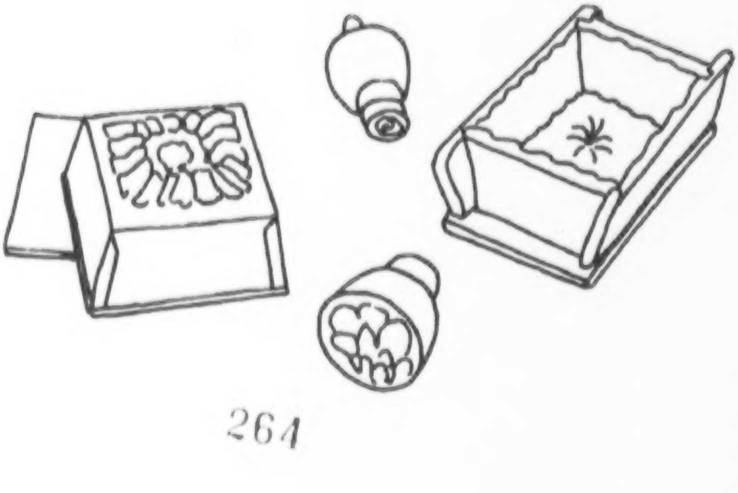
Mixing Bowls



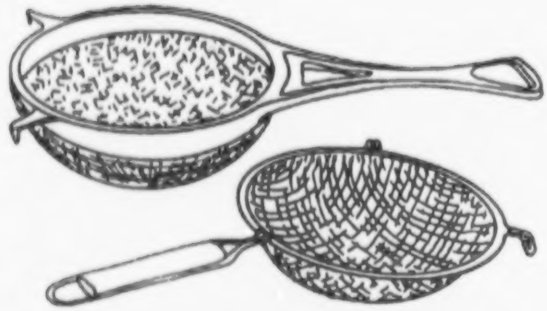
Copper Molds



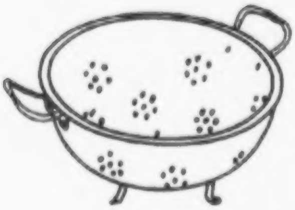
Butter Molds



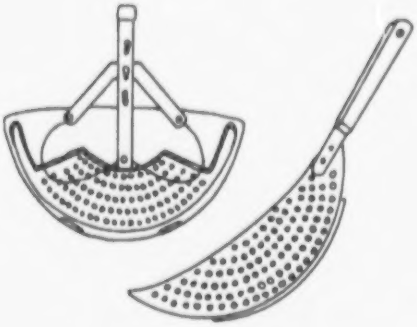
Strainers



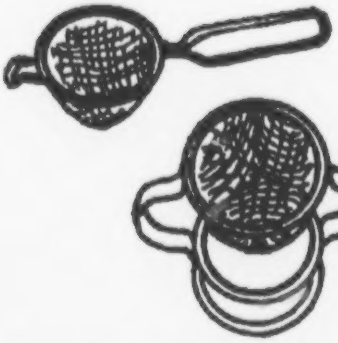
Bowl-shaped Sieves



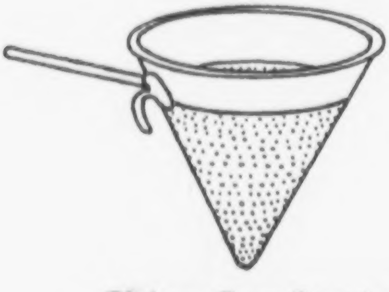
Colander



Pan Strainers

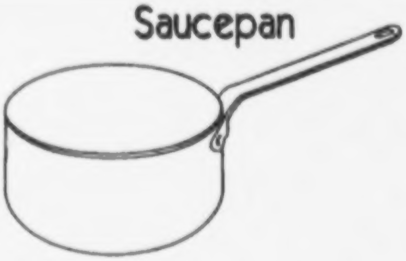
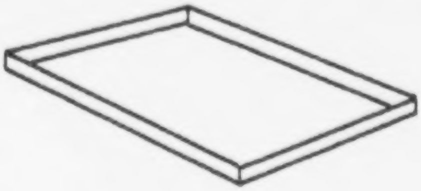
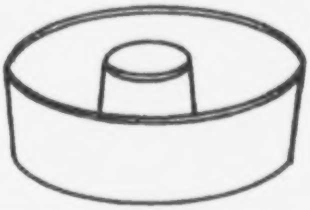
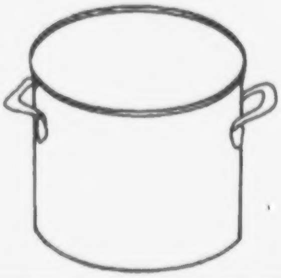


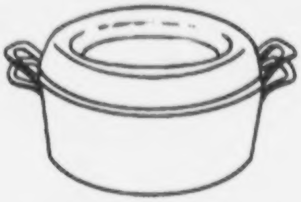
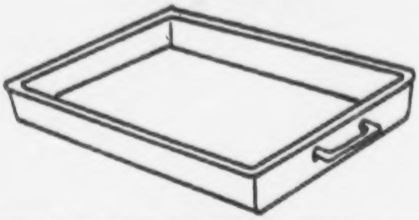
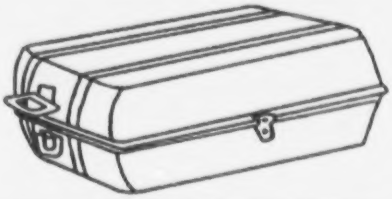
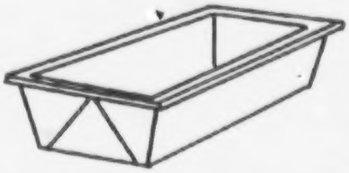
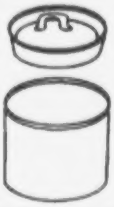
Coffee and Tea Strainers

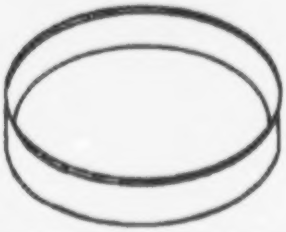
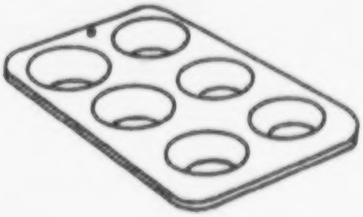
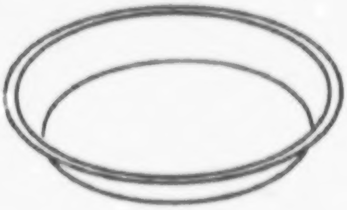


China Cap Strainer

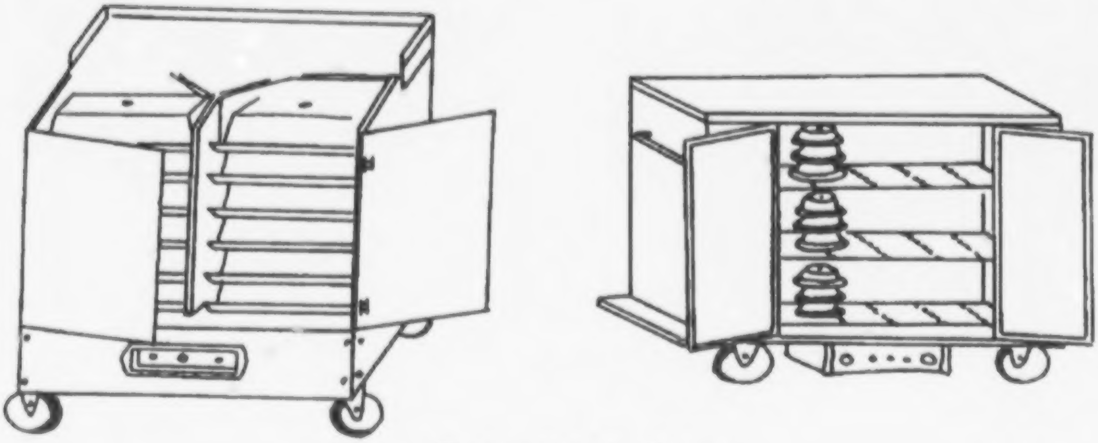
Pots and Pans

Saucepan 	Used for range tops cooking where the solids to liquid is high and stirring or whipping is necessary
Baking Sheet 	Used for baking sweet goods (cookies, sweet rolls, and sheet pies) Often salads are set up on sheet pans, which are then placed in the refrigerator. Are also used as trays
Tube Pan 	Used for sponge cakes and other products requiring a tube pan
Stock Pot 	Used for boiling and simmering where a large amount of water in relation to solids is used (such items as turkeys, bones for stock ham, and some vegetables) Inside rack holds certain foods off bottom of stock pot.

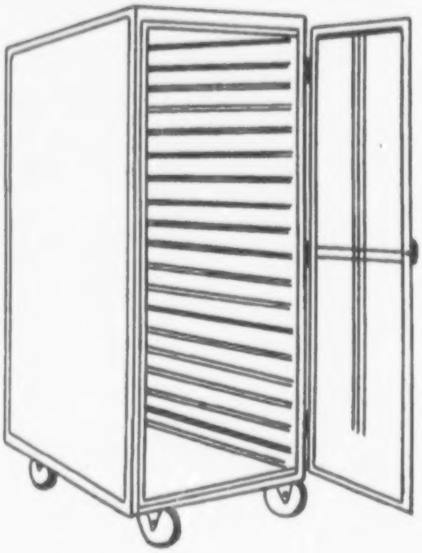
Braiser 	Used for searing, braising, and stewing
Bake Pan 	Used for baking such products as cakes, cornbread, casseroles, apples, and macaroni
Roasting Pan 	Used for roasting foods such as beef, pork, and veal in oven
Loaf Pan 	Used for baking or steaming some foods
Storage Container 	Used for storage of hot or cold foods

Cake Pan 	Used for baking layer cakes
Muffin Pan 	Used for baking muffins or cupcakes
Pie Pan 	Used for baking pies

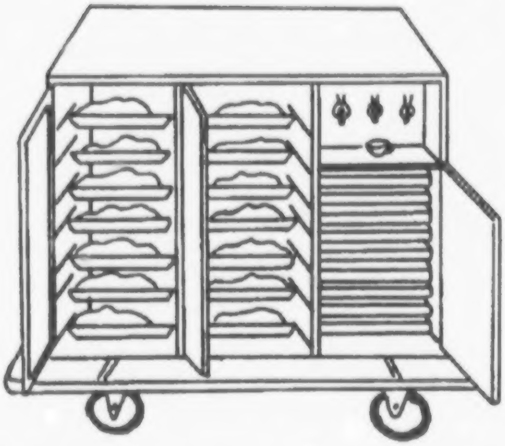
Carts



Banquet Carts



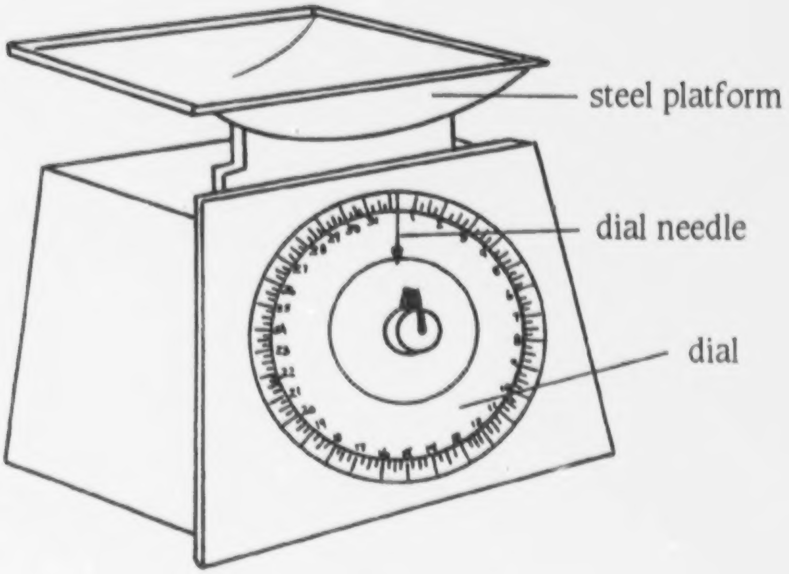
Bakery Cart

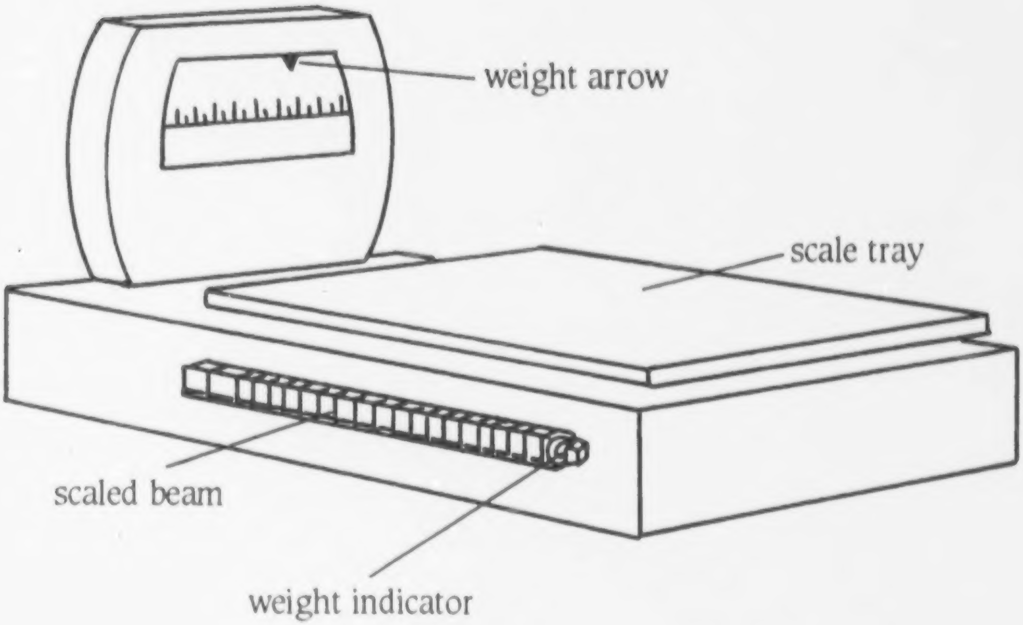


Cart Used in Hospital

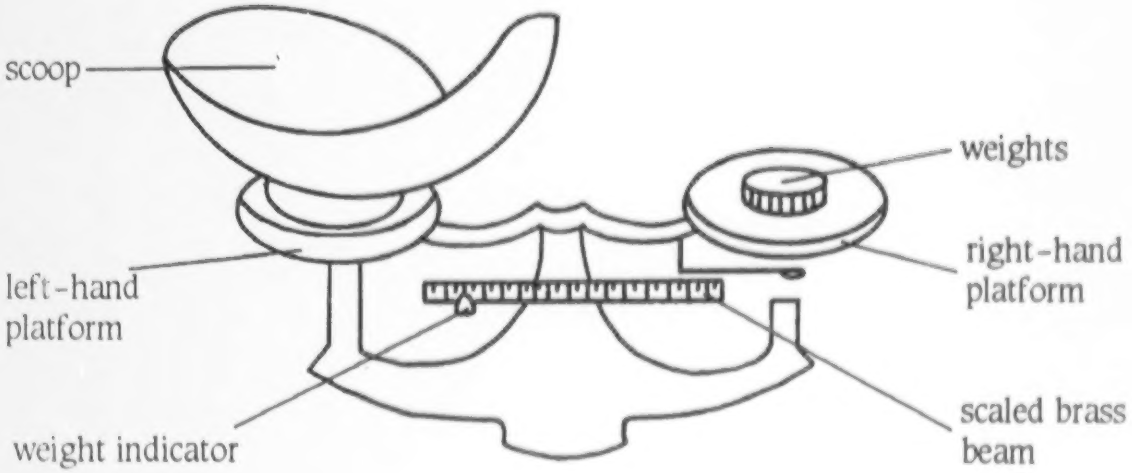
TA 49

Portion Scales

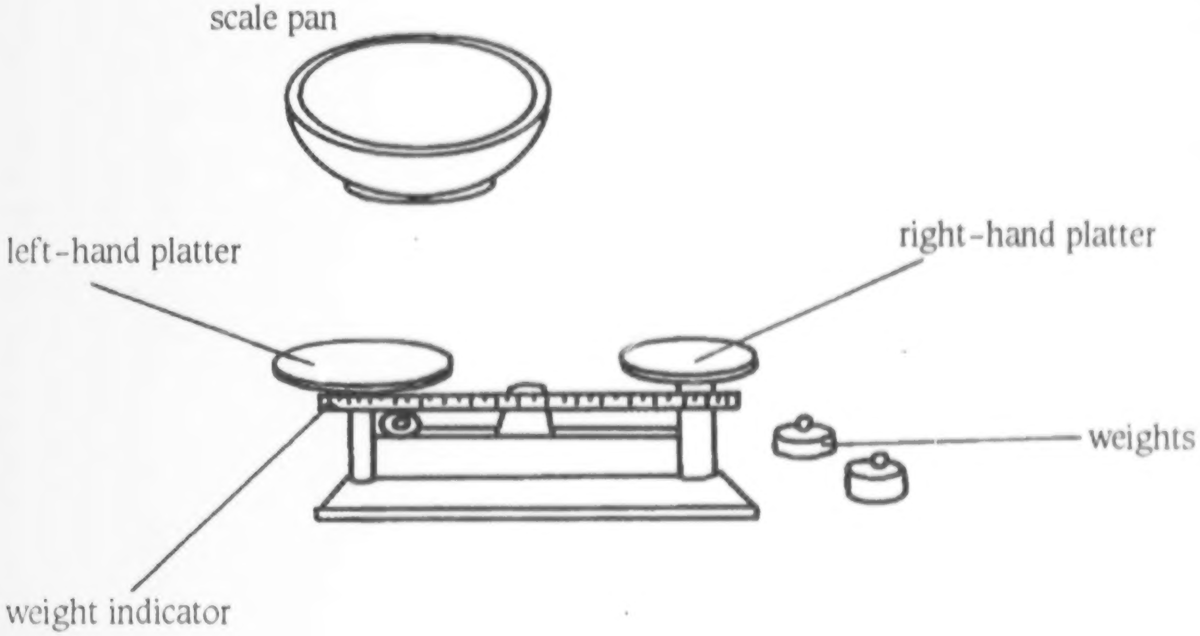

steel platform
dial needle
dial


weight arrow
scale tray
scaled beam
weight indicator

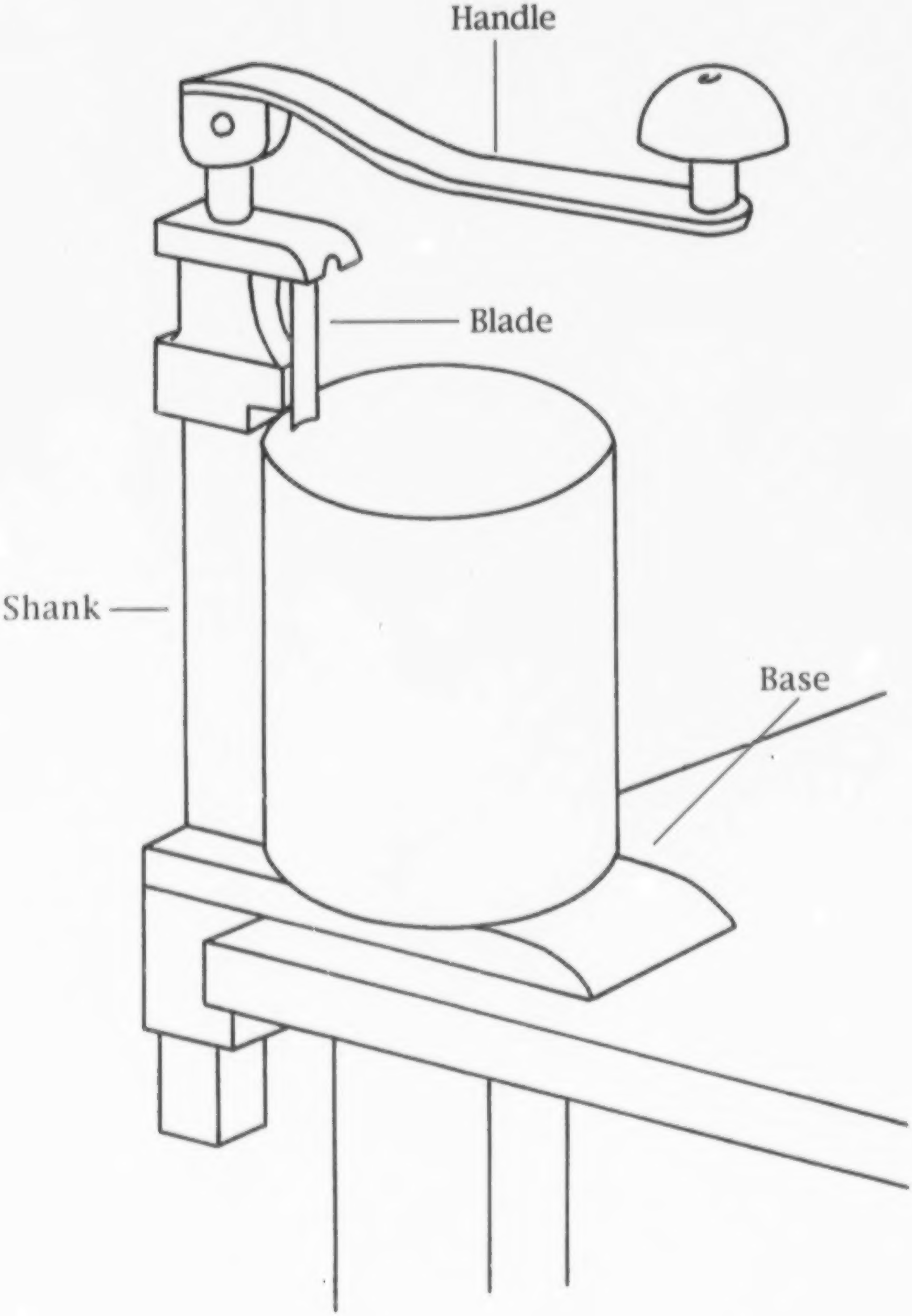
Baker's Scale


scoop
weights
right-hand platform
left-hand platform
weight indicator
scaled brass beam

Balance Scale


scale pan
left-hand platter
right-hand platter
weights
weight indicator

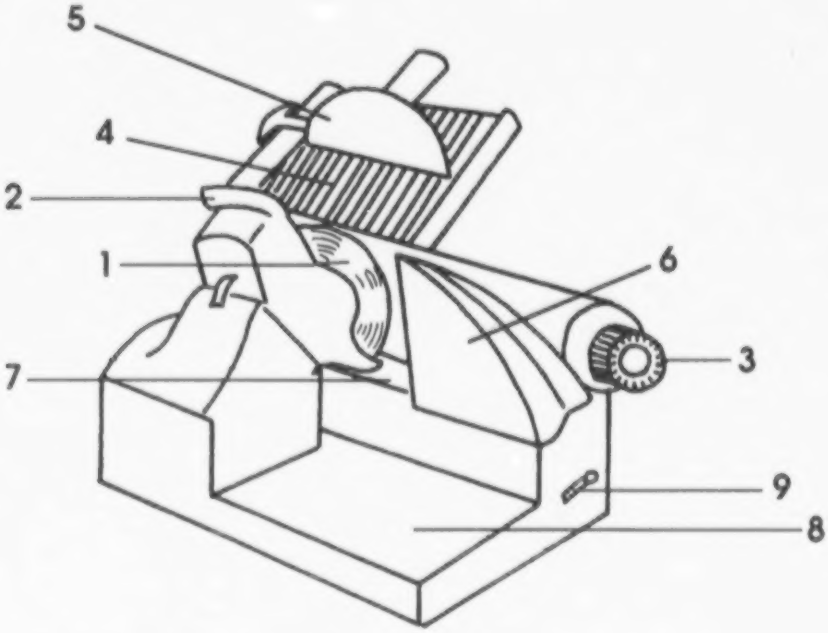
Can Opener


Handle
Blade
Shank
Base

Food Slicer

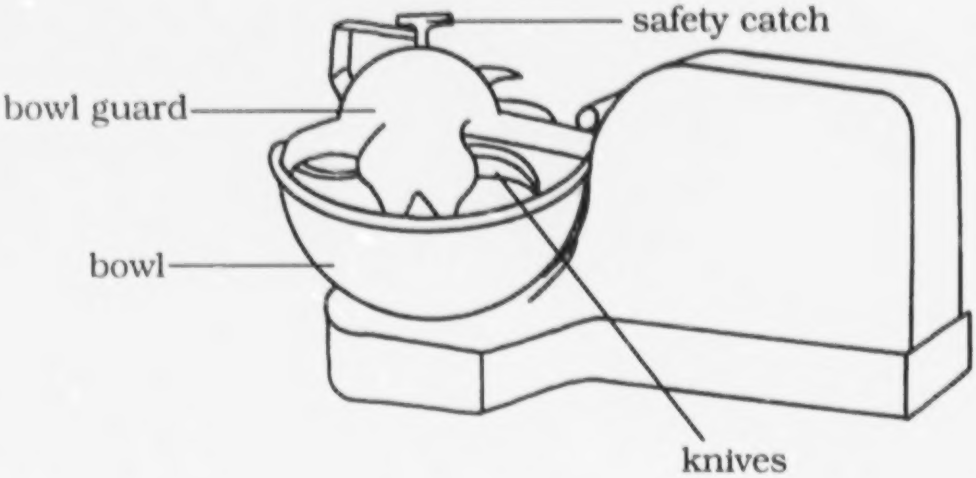
Parts of a Food Slicer:

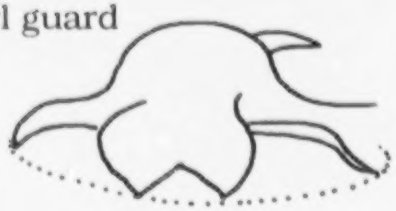
1. Blade or slicer knife
2. Blade guard
3. Blade control indicator
4. Food carriage
5. Food holder
6. Gauge plate
7. Scrap tray
8. Receiving tray
9. On and off switch



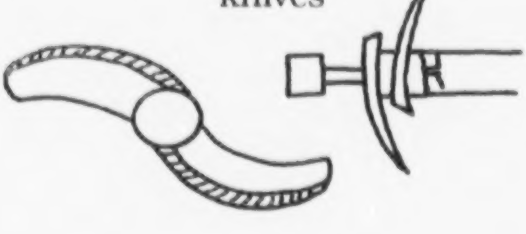
TA 52

Food Cutter or Chopper

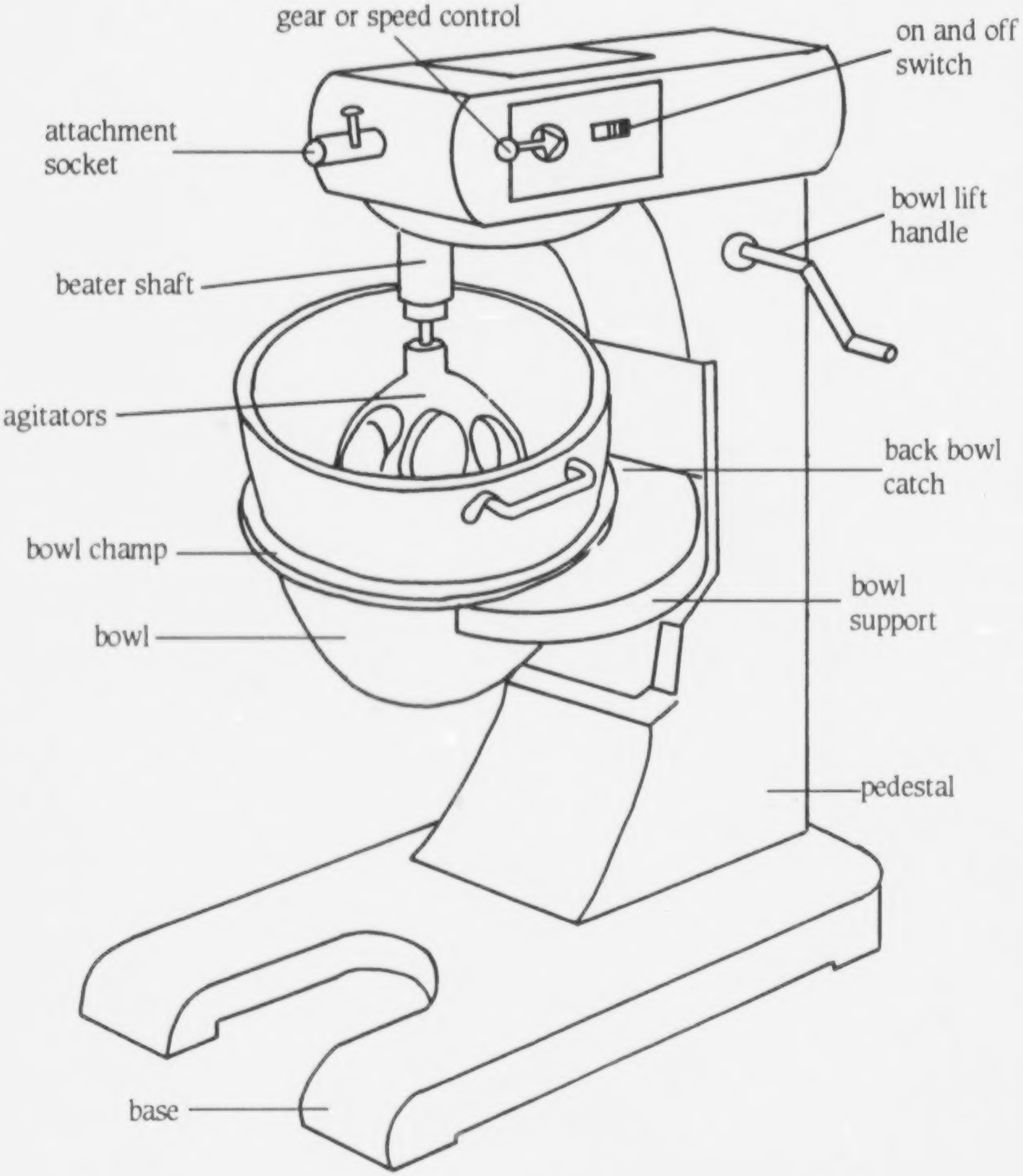

safety catch
bowl guard
bowl
knives



removable bowl

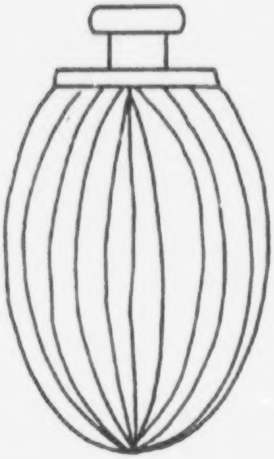


Mixer Parts

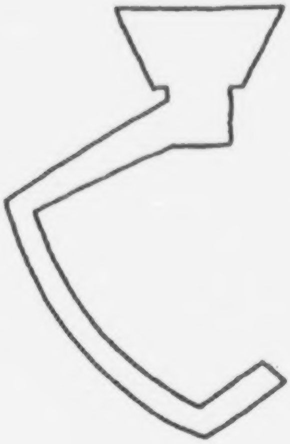

gear or speed control
on and off switch
attachment socket
bowl lift handle
beater shaft
agitators
back bowl catch
bowl champ
bowl support
bowl
pedestal
base

TA 54

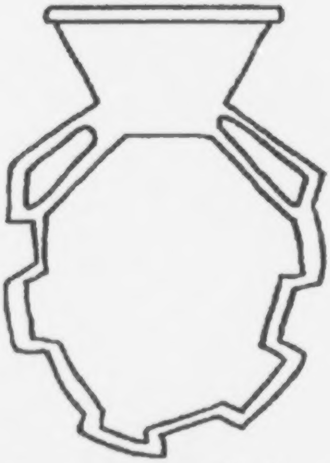
Mixer Agitators



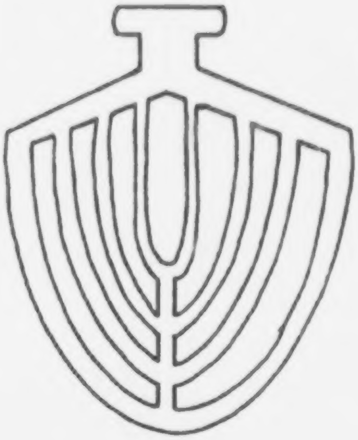
whip



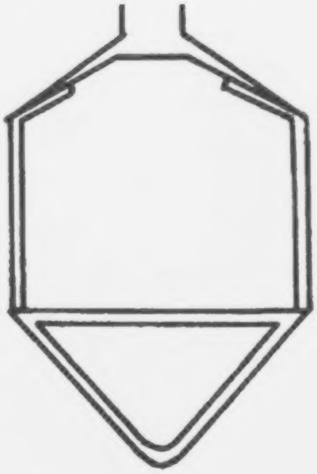
dough hook



sweet dough hook

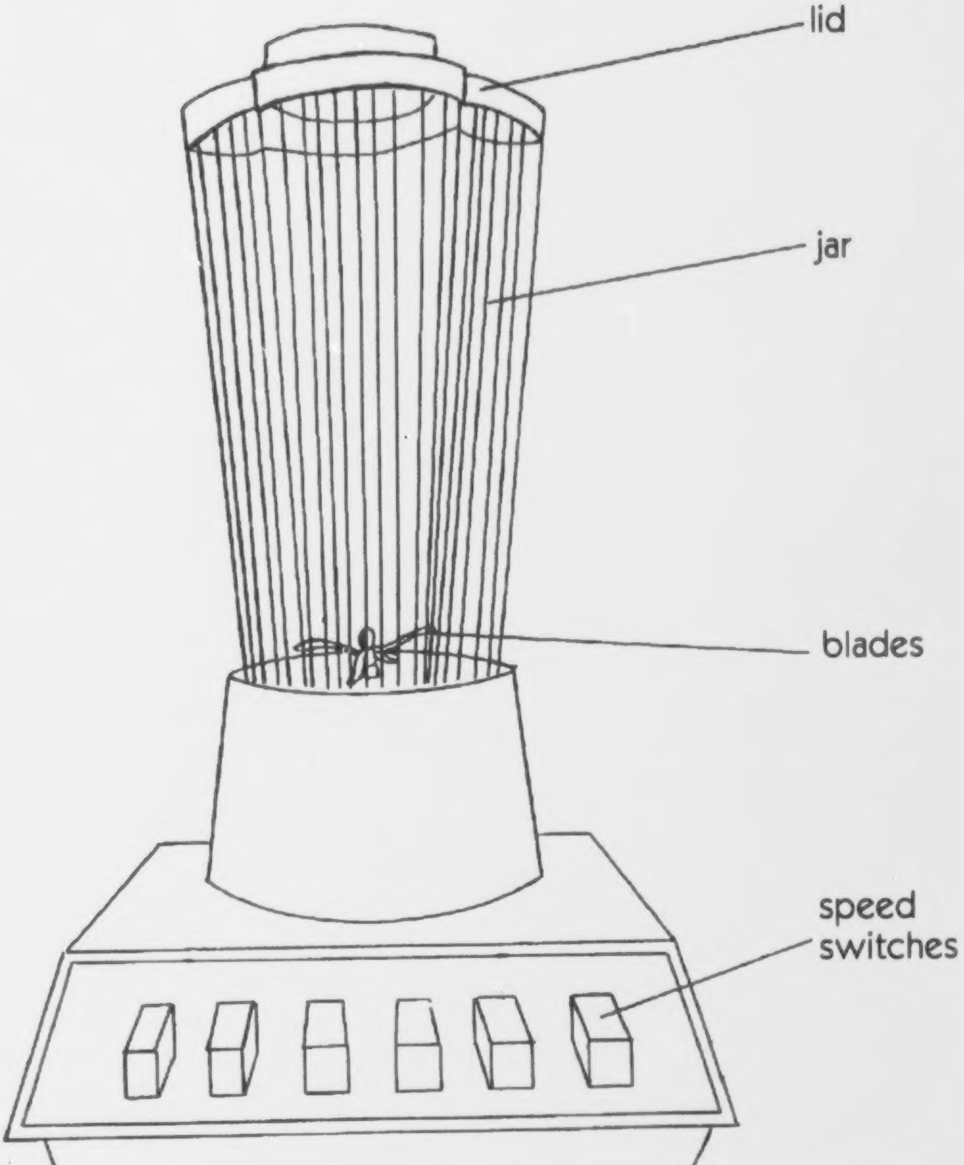


pastry knife

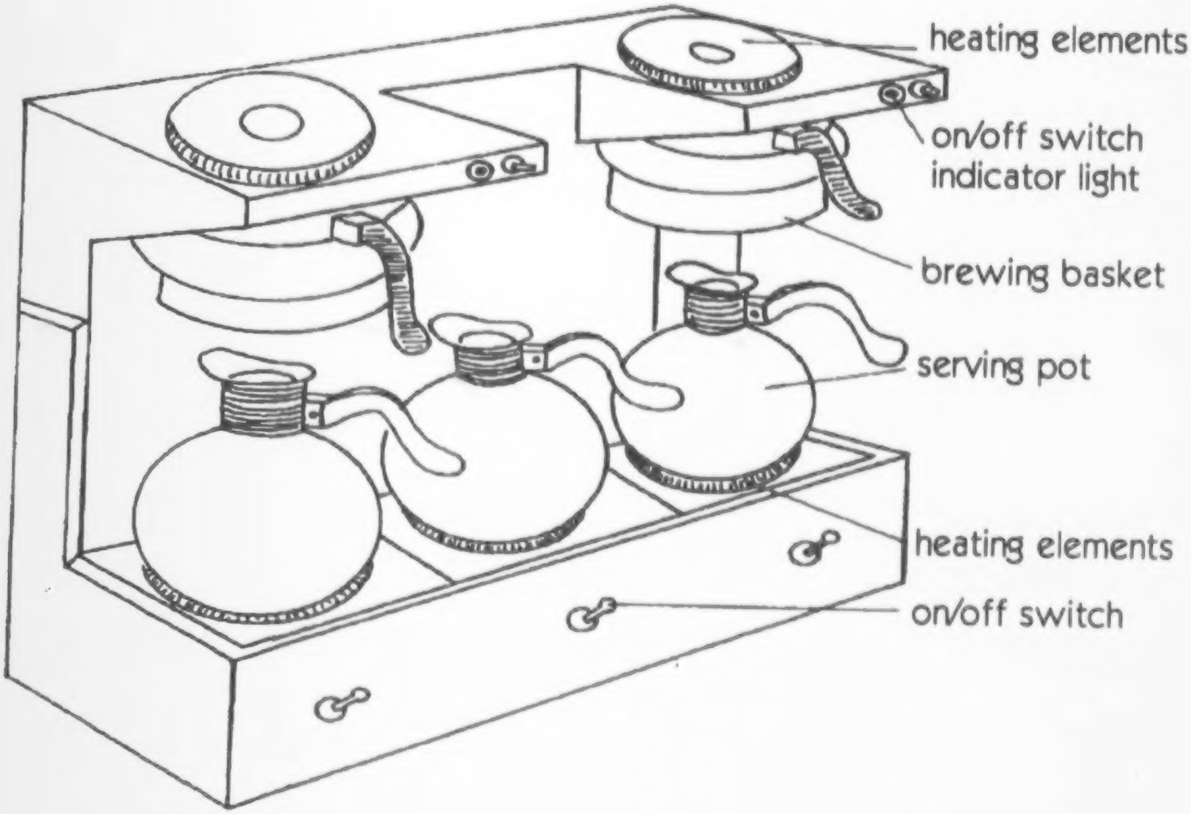


flat beater

Blender


lid
jar
blades
speed switches
base

Coffee Brewer


heating elements
on/off switch
indicator light
brewing basket
serving pot
heating elements
on/off switch

Cleaning Procedures
For the Tea Urn

THINGS TO NOTICE ➔ **Substances left on the inside of the tea urn.**

Daily Cleaning

- ☐ Rinse the urn with cold water after using.
- ☐ Fill the urn with water that is 140° - 160° F. to just above the tea stain line.
- ☐ Add recommended cleaner to the urn.
- ☐ Draw off about one-half gallon of the solution, and pour it back into the top of the urn.
- ☐ Allow this solution to stand until the stain is loosened. Be sure to hang a warning tag on the urn while it is being cleaned. (See warning!!!)
- ☐ Drain solution as you brush the sides of the urn with a brush.
- ☐ Rinse the urn two or three times.
- ☐ Clean the outside with a good all-purpose cleaner.
- ☐ Wipe the urn dry and polish it with a clean dry cloth.

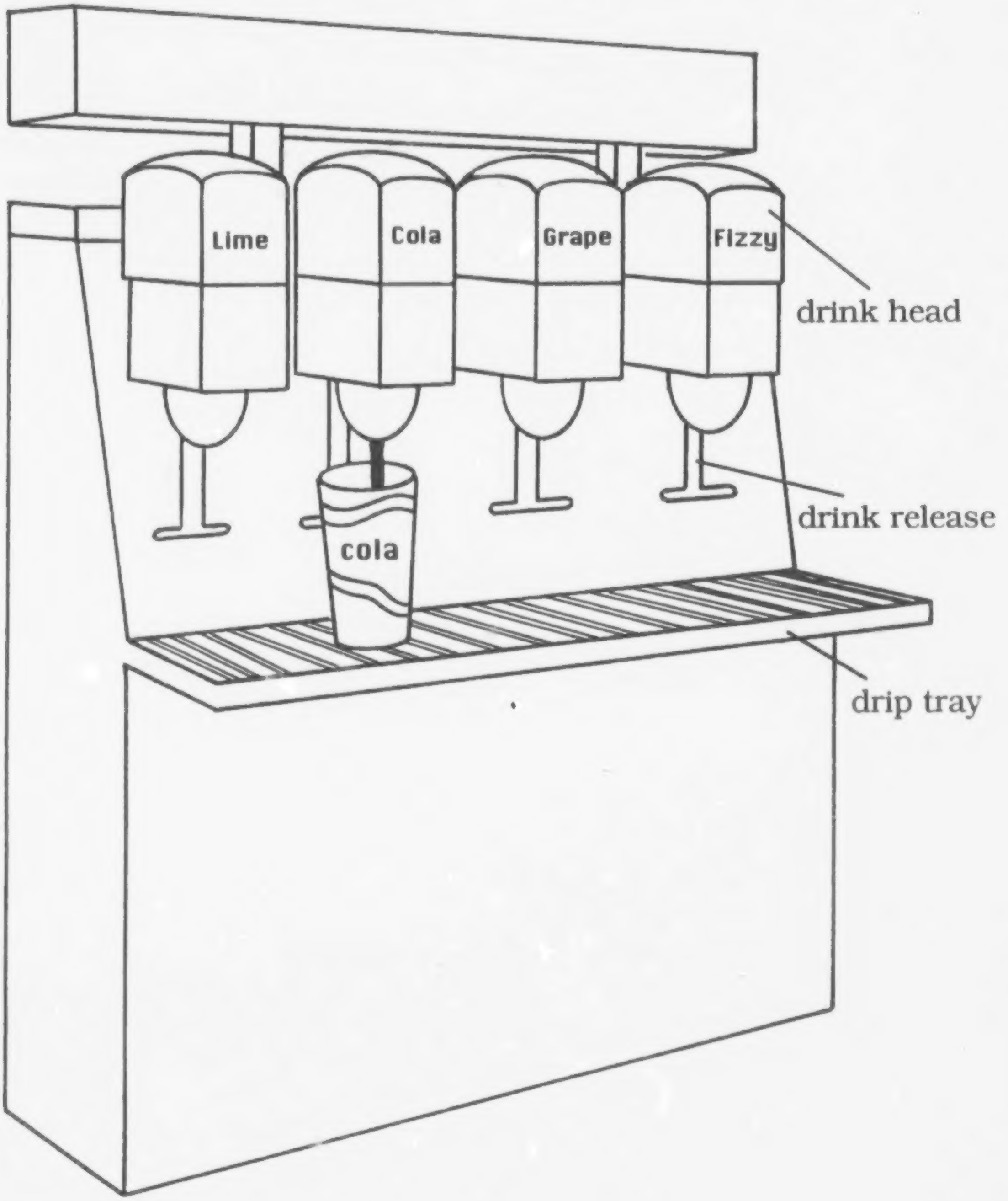
Weekly Cleaning

- ☐ Follow steps above, but use hotter water, more or stronger cleaner, and allow the solution to stay in the urn several hours or overnight.

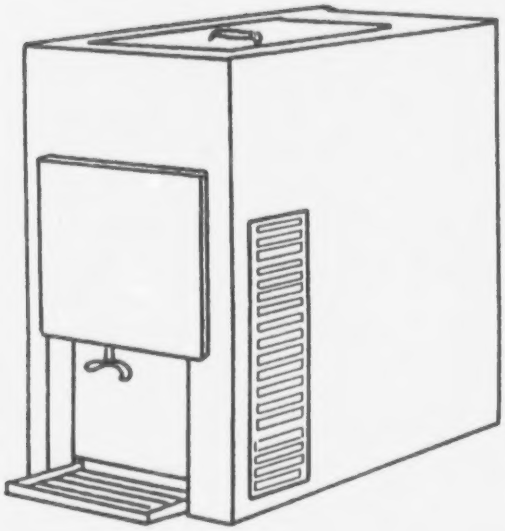
✱ TIPS: Keep the urn clean at all times to ensure a high quality tea product.

Warning: If a cleaning solution is left inside the tea urn, put a note on it so no one will use it by mistake.

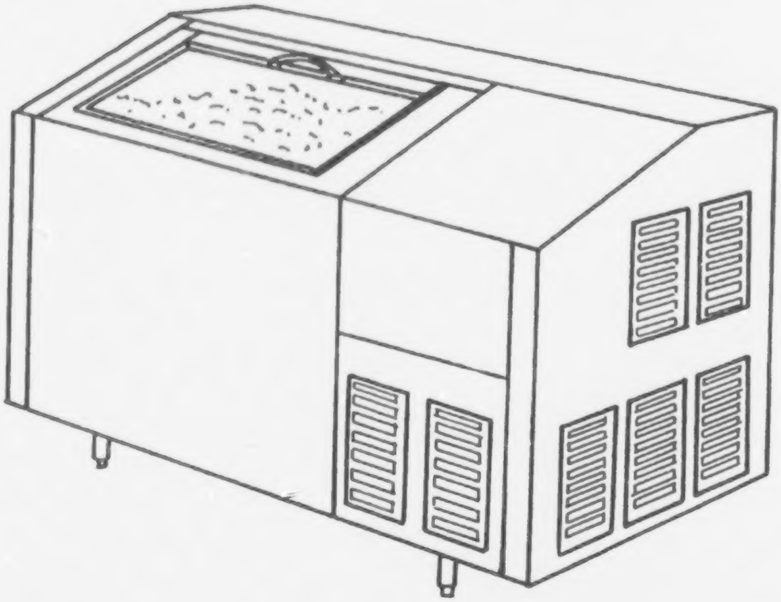
Cold Drink Dispenser


Lime
Cola
Grape
Fizzy
drink head
drink release
cola
drip tray

Ice Machines



counter model



floor model

THE DECISION IS YOURS

DIRECTIONS FOR PLAY ⊐

Each student will be given a pretend problem situation. Students will take turns telling the rest of the class the correct way to handle the problem and the reason for doing it that way.

#1 Mike is putting ice into glasses. He needs to do the job safely and correctly. Should he dip each glass into the ice machine to fill it with ice, or use the ice scoop to fill each glass? Why?

#2 Sally likes to eat ice. She passes by the ice machine many times and each time she reaches into the machine with her hand and gets ice to eat. Why is it wrong for Sally to reach into the ice machine with her hand?

#3 Joey is filling a cooler with ice. Cans of soft drinks will be placed on the ice in the cooler. Since the ice will never directly touch anything to be eaten or drank, Joey says it is okay to scoop the ice with his hands. Is Joey right, or wrong? Why?

#4 Juan used a glass to scoop ice from the ice machine. The glass broke, and Juan thinks he go out all the broken glass. Should he tell his boss he broke the glass in the ice machine, even though he thinks all the glass is out? Why?

#5 Maria spilled cooking oil on the floor. She wiped it up and got a little on her hands. She says it is okay to scoop ice from the ice machine without washing her hands because she will be using the ice scoop. Is what Maria says right, or wrong? Why?

#6 Billy just made pudding and needs to chill it in a hurry. He says it is okay to carefully put the container of pudding in the ice machine to chill quickly. Is he right, or wrong?

#7 Lou Lyn needs to scoop ice in a hurry. She knows it might be quicker to dip each glass to fill it instead of using the ice scoop, but she says the ice scoop is cleaner and safer. Is Lou Lyn right? Why?

#8 Carroll is about to scoop ice from the ice machine using the ice scoop. He knows his hands will not touch the ice, but he still washes his hands carefully. Is what Carroll did right? Why?

#9 Sue used an ice scoop to put ice into an ice bucket. Now which should she now be able to use her hand to put ice from the bucket into each glass? Why?

#10 Alison used some ice to put around canned drinks in a cooler. The canned drinks were all consumed, but there is still some ice in the cooler. Should Alison throw the ice back in the ice machine? Why?

The Decision is Yours

Answers

#1 Always use a scoop when putting ice in glasses. A glass might break as it is dipped in the ice, and Mike would probably touch the ice with his hand if he used a glass.

#2 Never touch the ice in the ice machine with your hand. It is also wrong for Sally to eat ice or anything else while she is working.

#3 Always use a scoop when removing ice from the ice machine. You must not think only of the cleanliness of the ice your are removing but also of the cleanliness of the ice that will be left in the machine.

#4 Juan should never have used a glass in the first place, but when he did make a mistake, he should have told his boss immediately. If he did not get all of the glass out, it could be served to someone in an iced drink.

#5 Maria is wrong. Always have clean hands when using the ice machine.

#6 The ice machine is used to make ice. It is not used to chill foods and drinks. The container could also cause the ice to be unsanitary. Billy should place the pudding in the refrigerator or freezer if he needs to chill it very quickly in a short time.

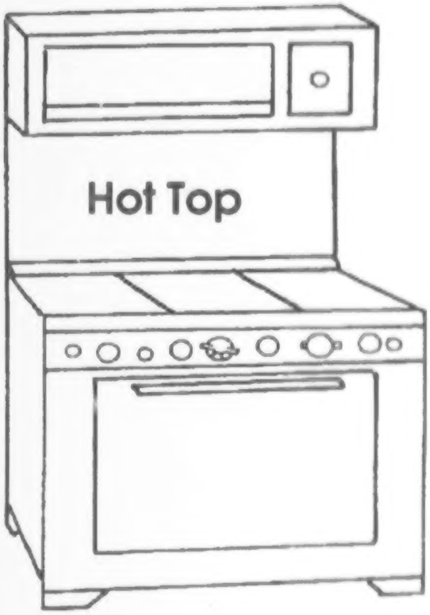
#7 Lou Lyn is right. Always use a scoop to remove ice from the ice machine. (See #1.)

#8 Always have clean hands when using the ice machine.

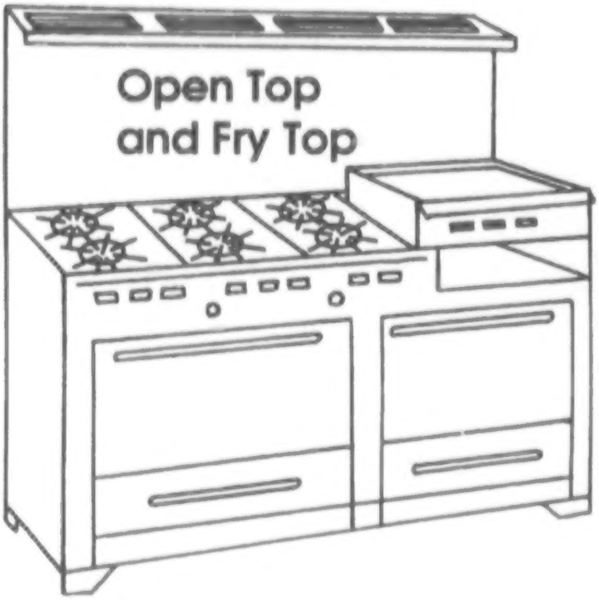
#9 Use a small scoop or tongs to put ice from the ice bucket into glasses. Never scoop ice with your hands.

#10 Never put left over ice back in the ice machine. Never put ice that has been around canned drinks back in the ice machine because the cans may have been dirty.

Range Tops

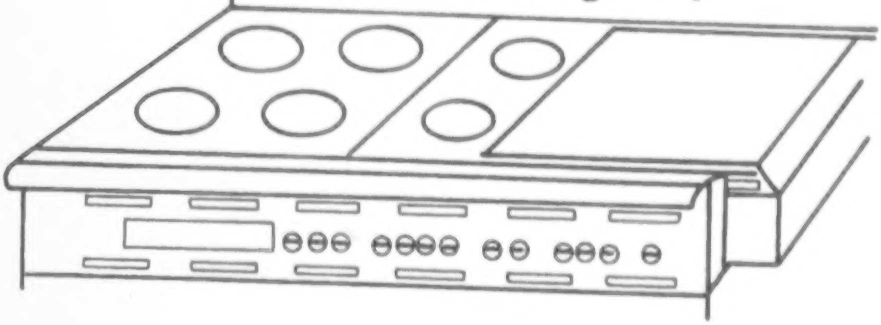


Hot Top

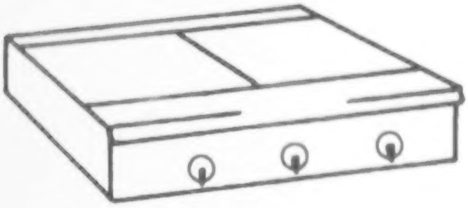


Open Top and Fry Top

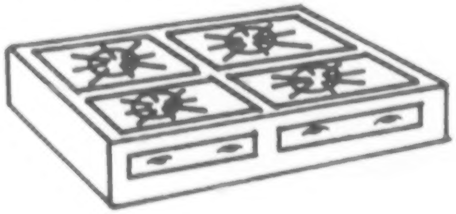
Electric Range Top



Hot Range Top



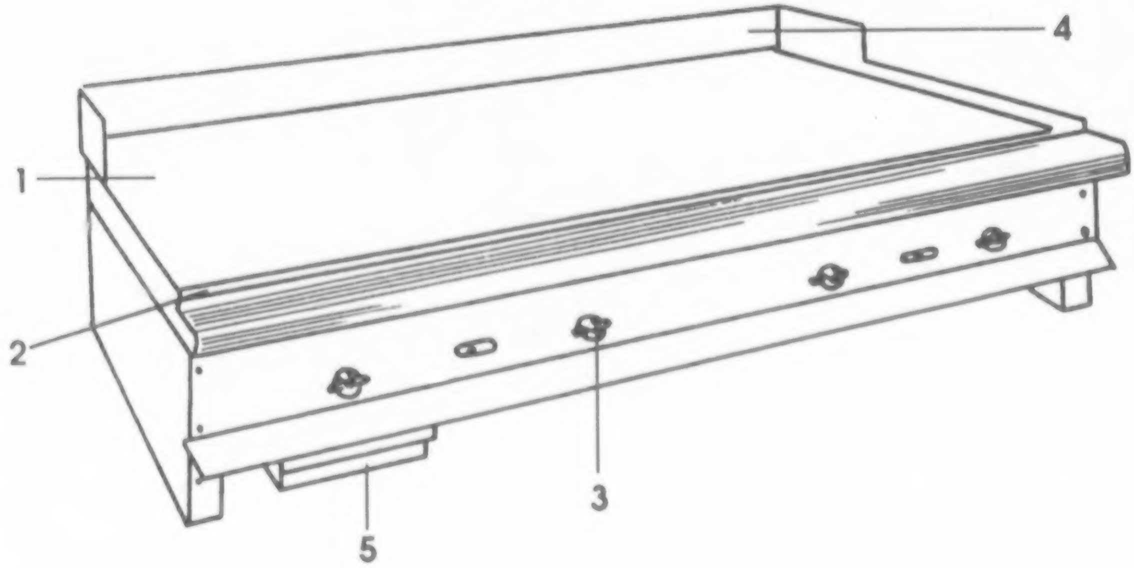
Gas Range Top



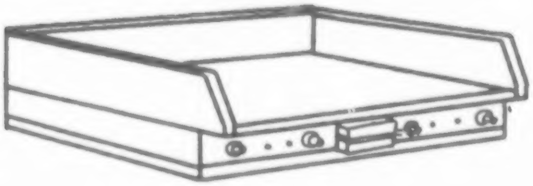
Griddles and Grills

1. Griddle surface
2. Grease Troughs
3. Temperature Control
4. Splash Guard
5. Draining Tray or Drawer

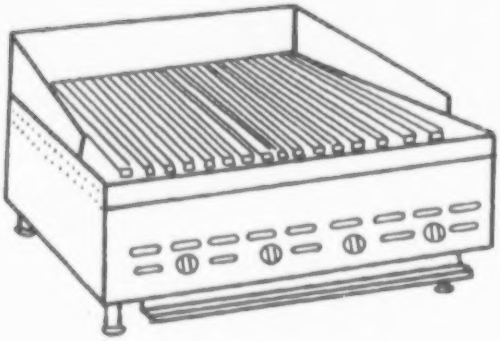
Griddle

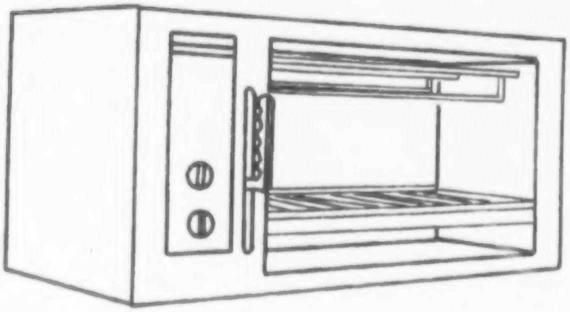


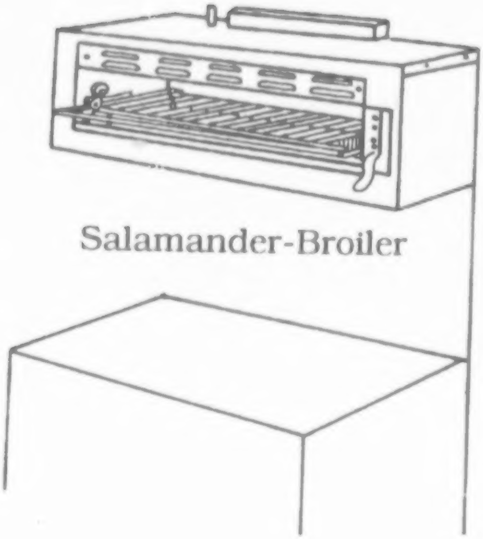
Grill

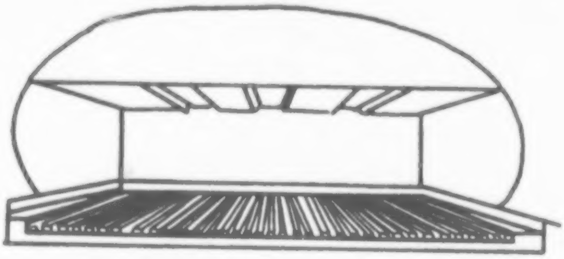


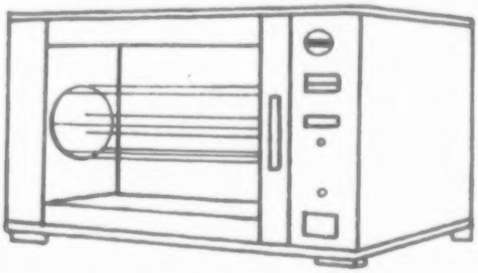
Broilers


Char-Broiler


Broiler

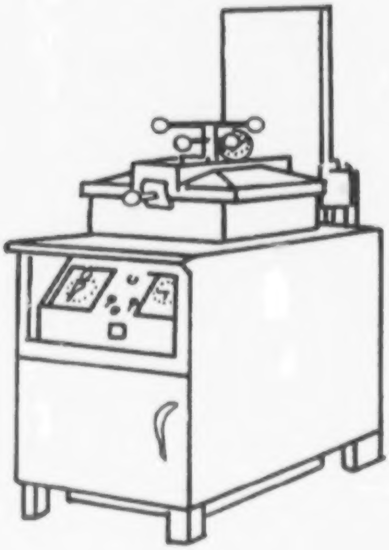

Salamander-Broiler


Open Hearth

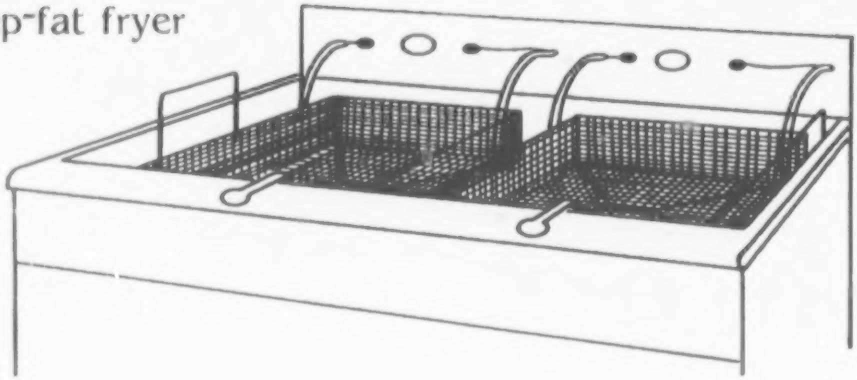

Rotisserie Broiler

Deep-Fat Fryer

Pressure type deep-fat fryer

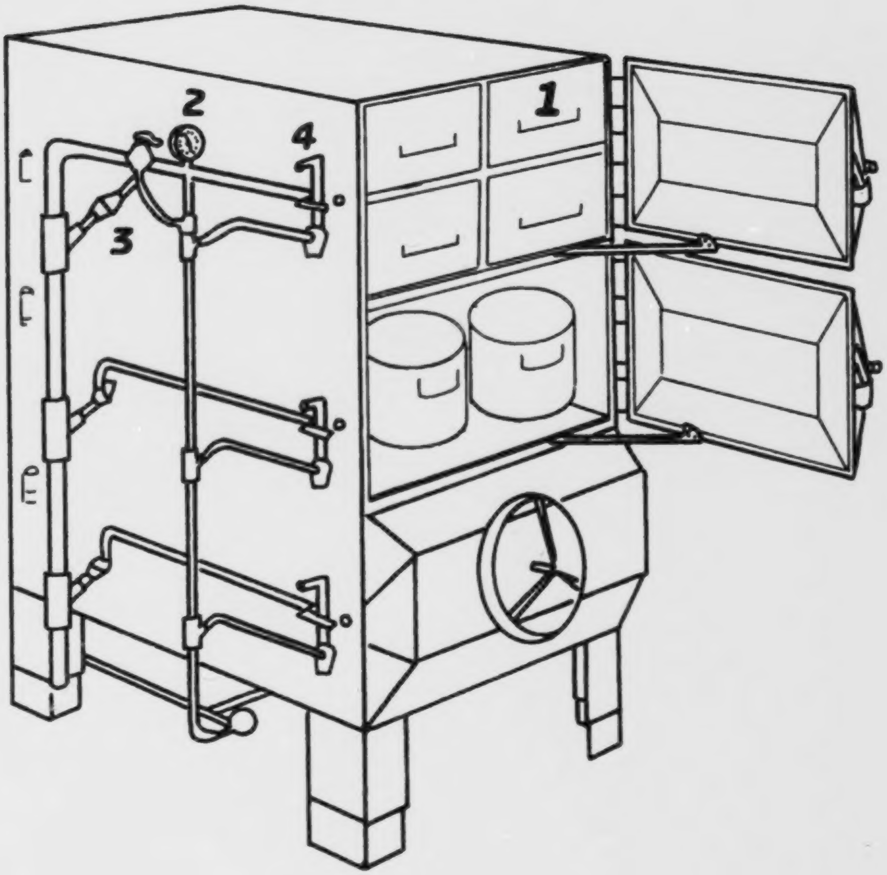


Conventional deep-fat fryer

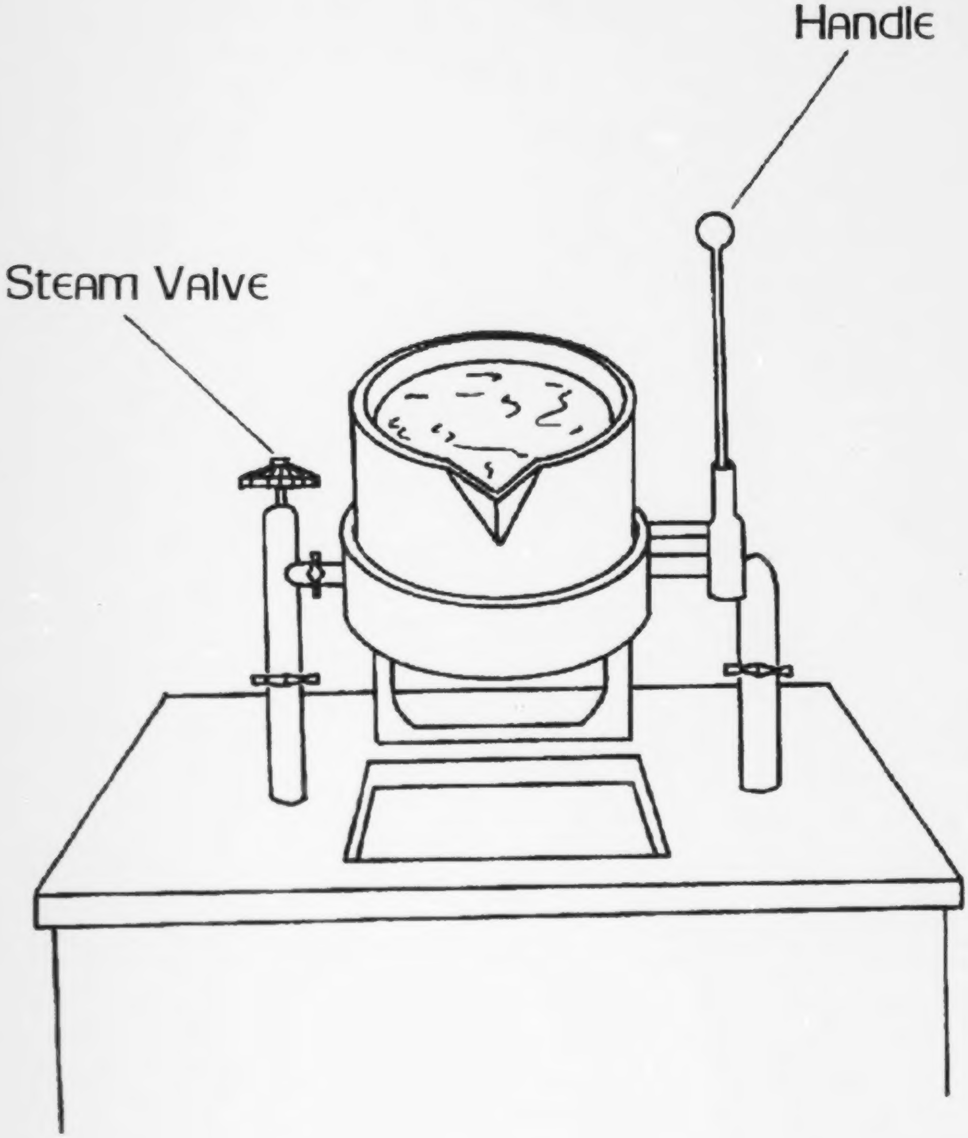


Compartment Steamer

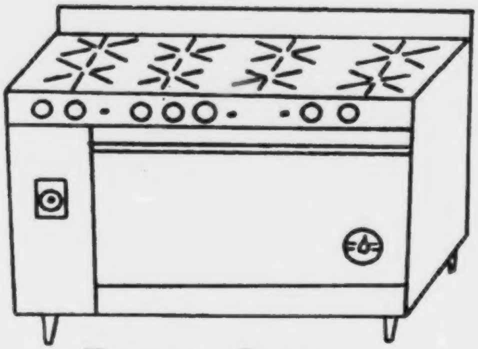
1. compartment
2. pressure gauge
3. safety valve
4. exhaust valve



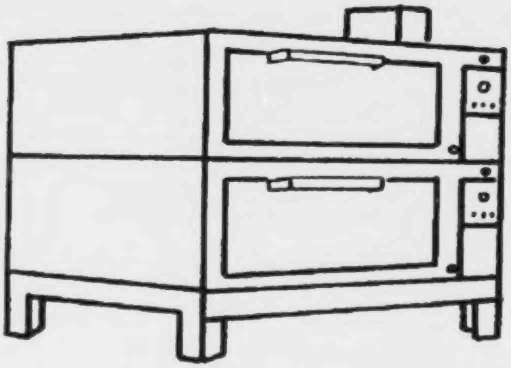
Steam Jacketed Kettle


Handle
Steam Valve

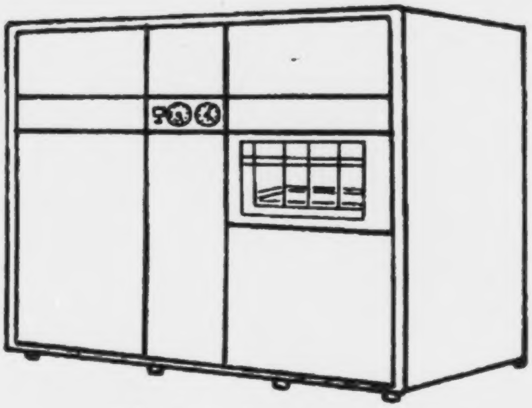
Ovens



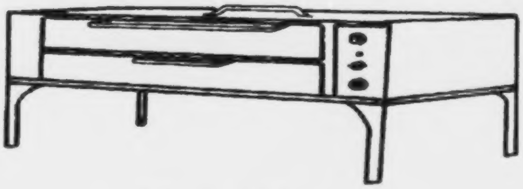
Range Oven



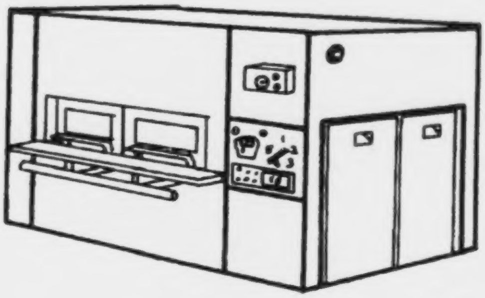
Stack Oven



Reel Oven

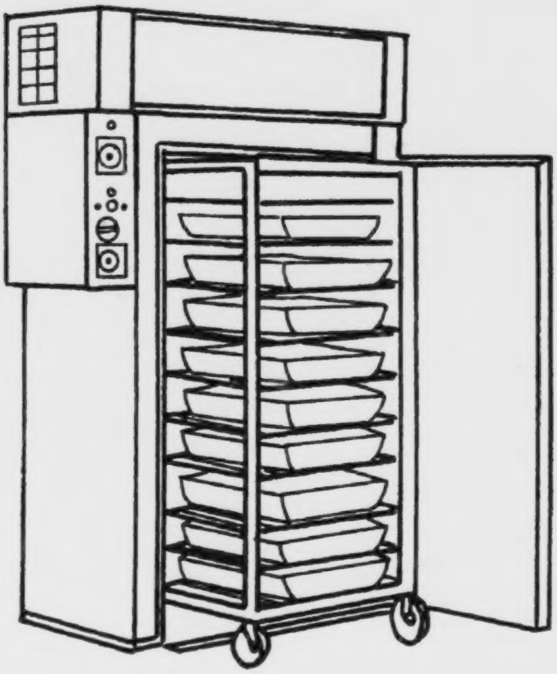


Pizza Oven

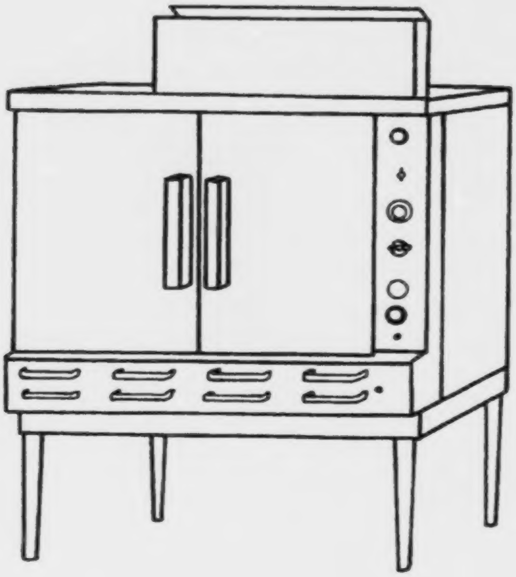


Rotary Oven

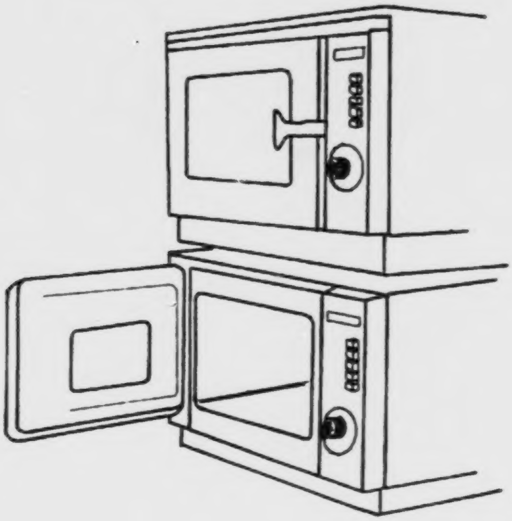
Reconstitution Oven

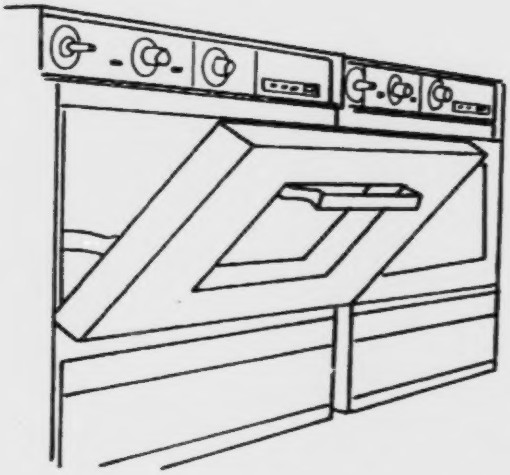


Convection Oven



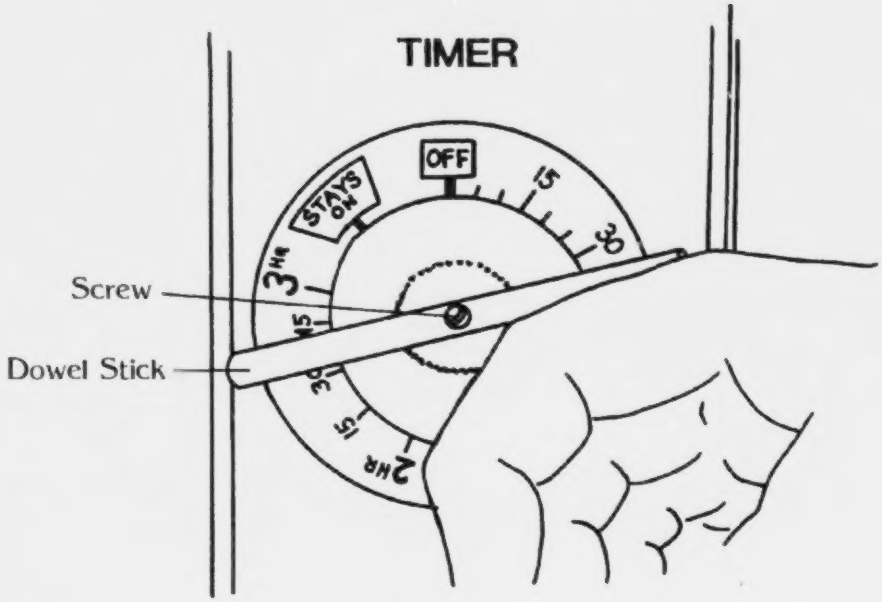
Microwave Ovens



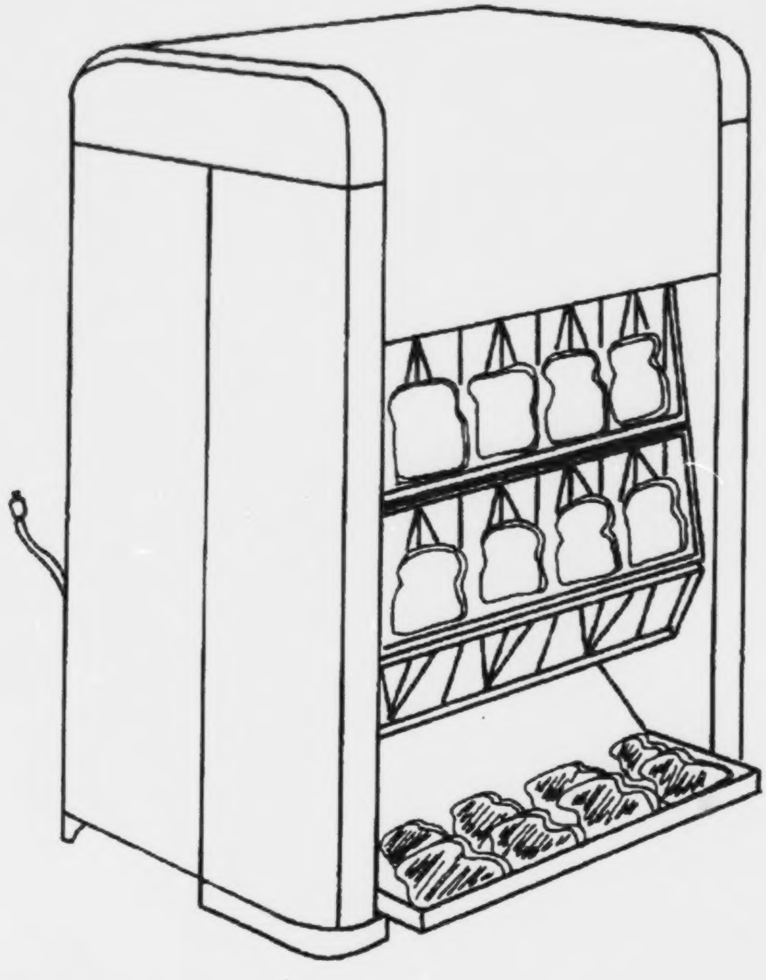


TA 67

Adaption for Easy Grasp of Timer

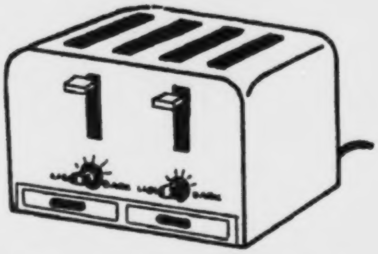

TIMER
OFF
STAYS ON
15
30
3 HR
45
30
15
2 HR
Screw
Dowel Stick

Conveyor Toaster

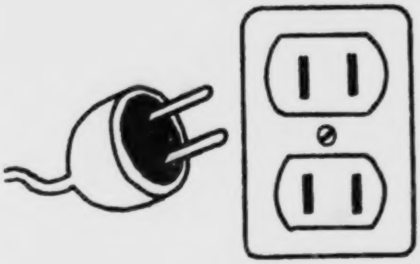


TA 69

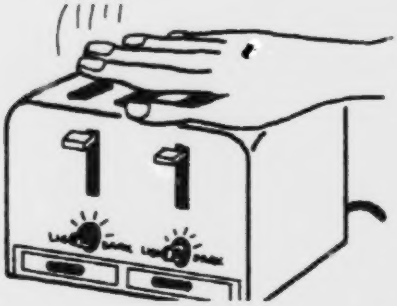
Steps in Cleaning The Toaster



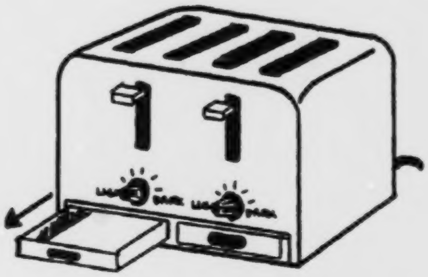
1. Wait until the toaster is cool.



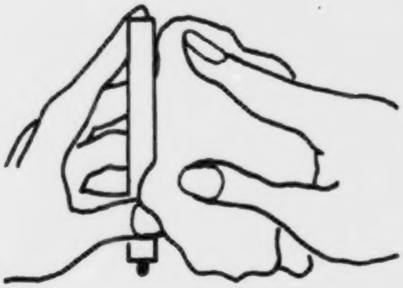
2. Unplug the toaster.



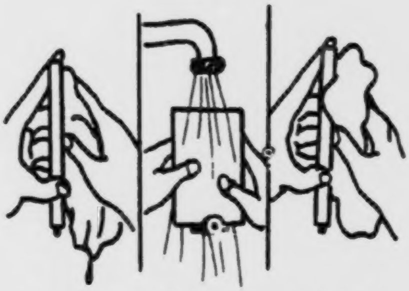
3. Tap the toaster to make crumbs fall.



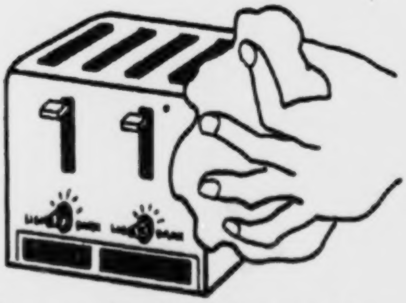
4. Remove the crumb trays.



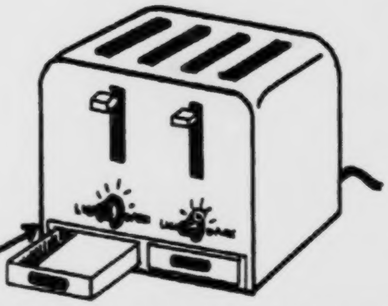
5. Brush away crumbs with a dry cloth.



6. Clean, rinse, and dry the crumb tray.



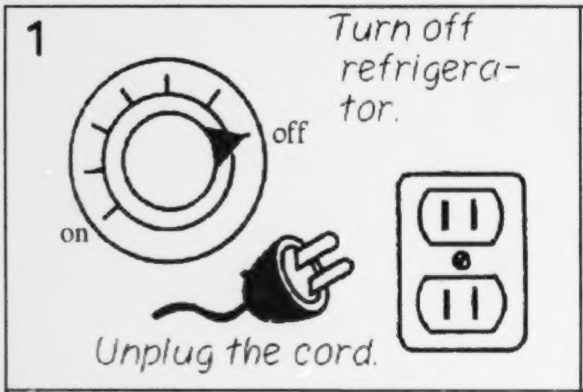
7. Clean and polish the outside of the toaster



8. Replace the crumb trays.

Cleaning the Refrigerator or Freezer

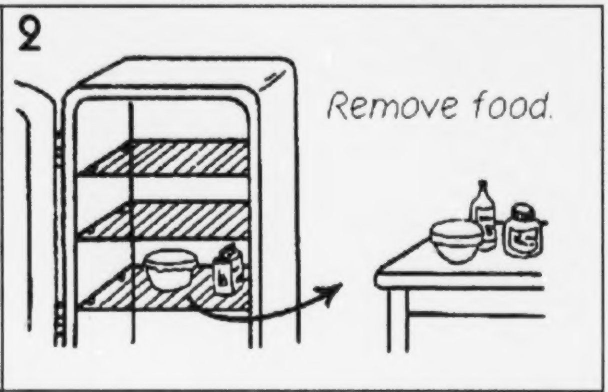
1



Turn off refrigerator.

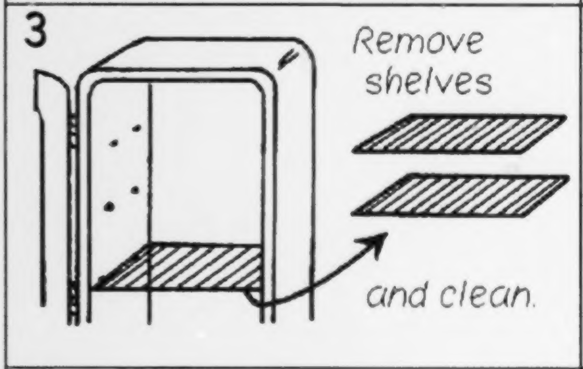
Unplug the cord.

2



Remove food.

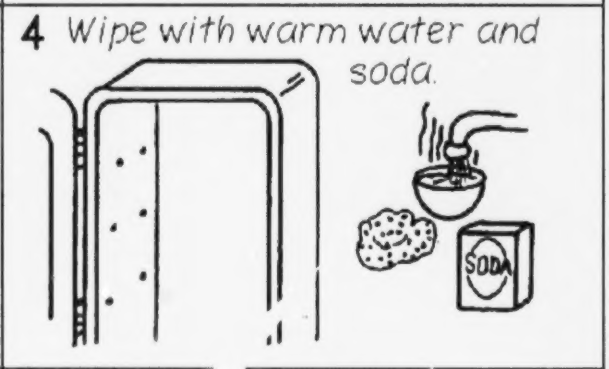
3



Remove shelves

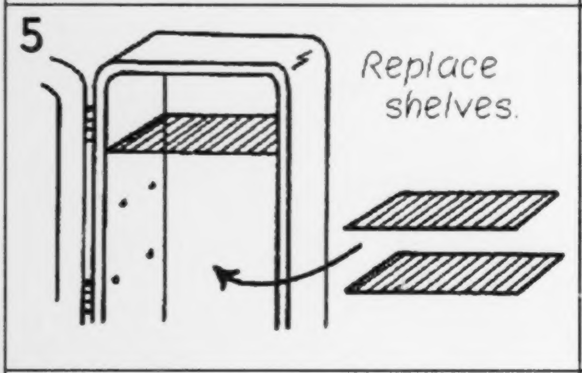
and clean.

4



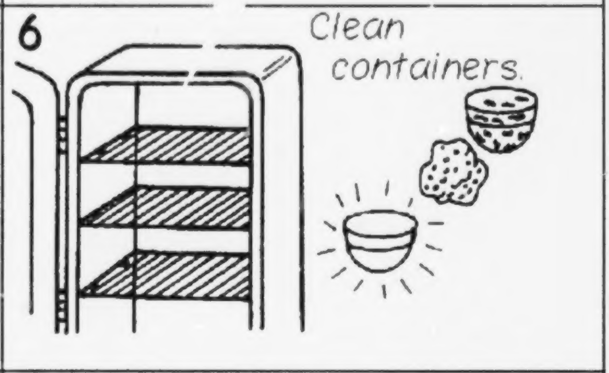
Wipe with warm water and soda.

5



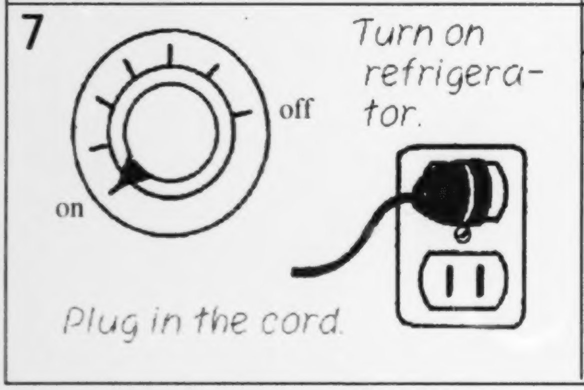
Replace shelves.

6



Clean containers.

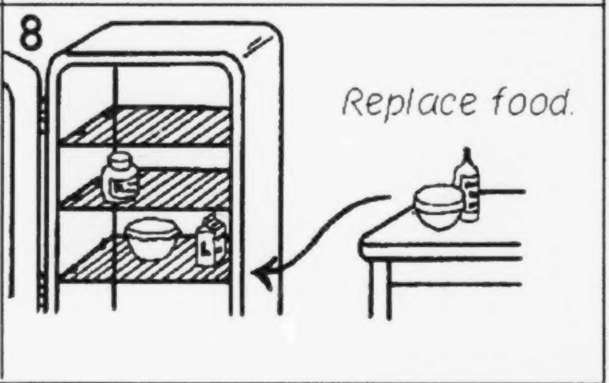
7



Turn on refrigerator.

Plug in the cord.

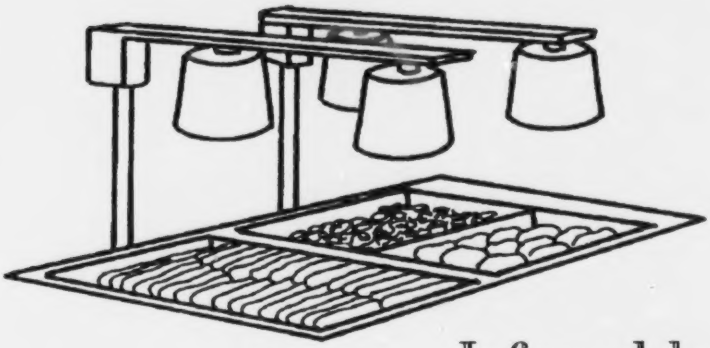
8



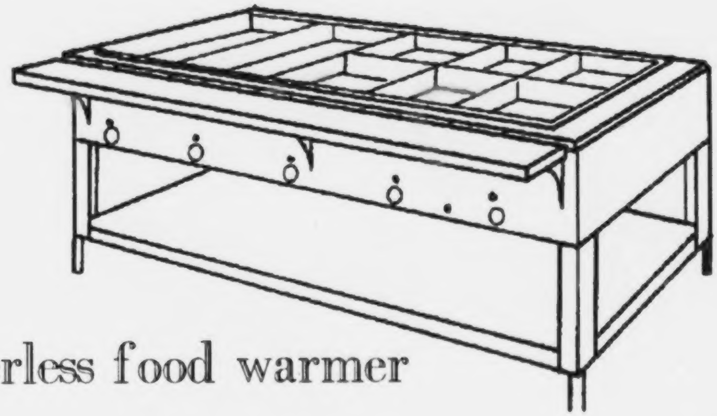
Replace food.

TA 71

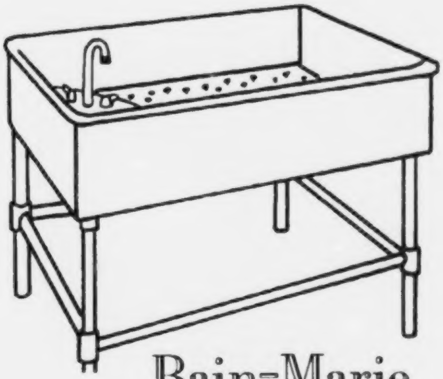
Food Warmers



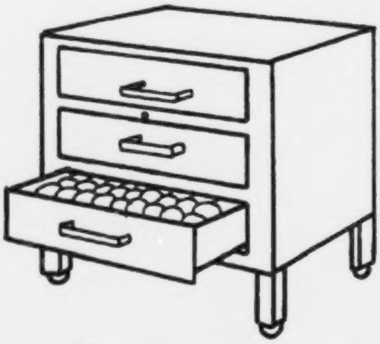
Infrared lamps



Waterless food warmer

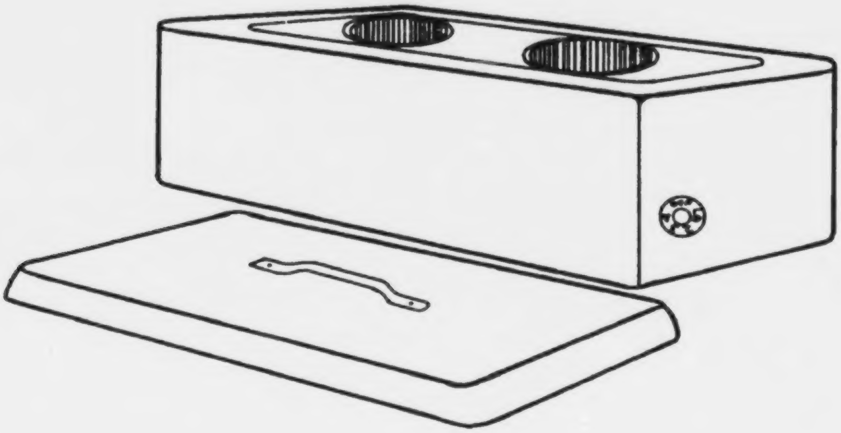


Bain-Marie

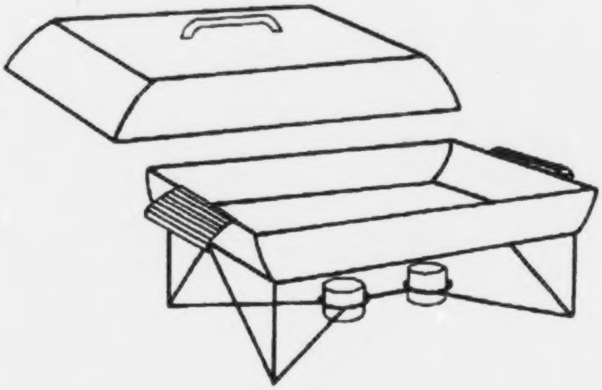


Roll warmer

Twin-well counter food warmer

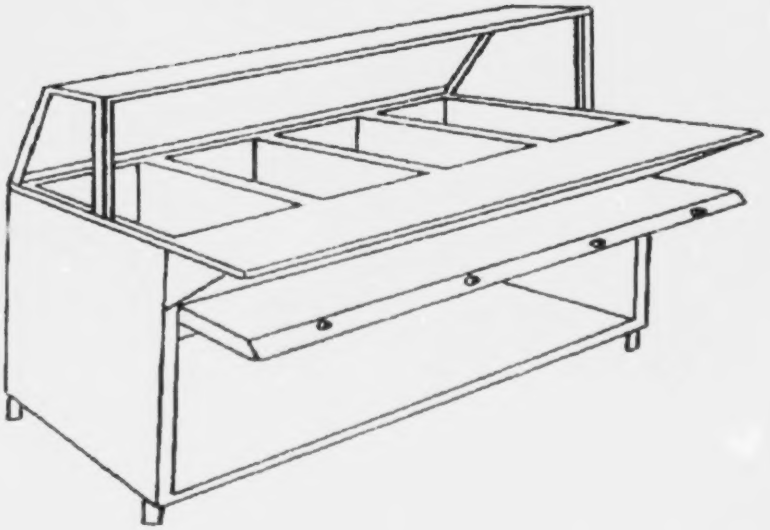


Portable hot food warmer

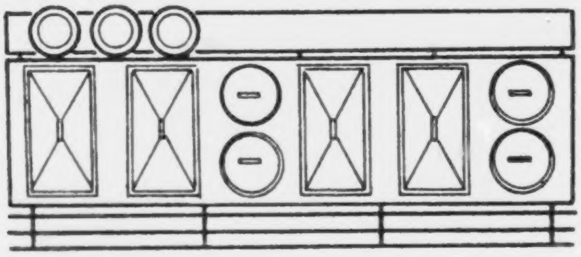


TA 71

(Hot Serving and Holding Units)



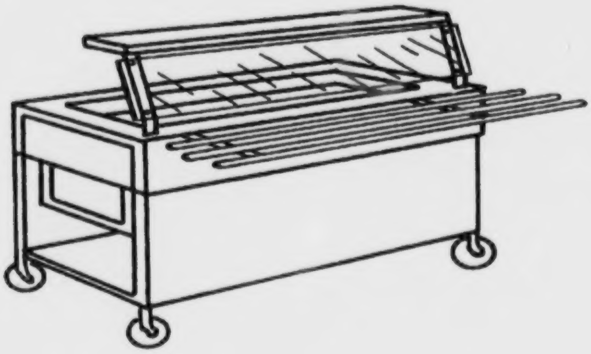
steam table



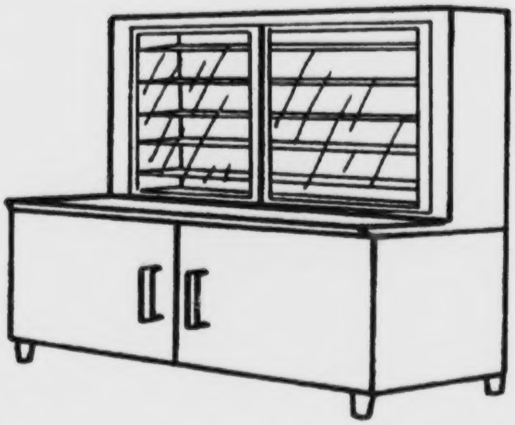
Advantages and Disadvantages of Hot Holding and Serving Units

		Advantages		Disadvantages
Infrared	✦	Is portable	✦	dries food out
Steam Serving Table	✦ ✦ ✦ ✦	Holds all types of foods Holds large quantities of food Reduces food shrinkage Keeps foods at a hotter serving temperature	✦ ✦ ✦ ✦ ✦	Water level must be checked Must be preheated Water must be drained daily Food quality must be checked at intervals to prevent overcooking or sogginess of some food products Possibility of burns when replacing or removing counter pans
Dry Heat Table	✦ ✦	Less trouble since no water is used Temperatures easily controlled	✦ ✦ ✦	Dries food out Sometimes burns food on the bottom of the counter pan Possibility of burns when replacing or removing counter pans
Bun Warmer	✦ ✦ ✦	Keeps bread from drying out Efficient method for holding hot breads as breads can be prepared ahead Easy to clean	✦	Limited number of types of foods that can be placed in the warmer
Twin Well Warmer	✦ ✦	Particulary good for holding sauces and gravies Can be used with or without steam	✦ ✦ ✦ ✦ ✦	Is portable Used for limited quantity Water level must be checked if steam is being used Water must be drained daily Must be preheated

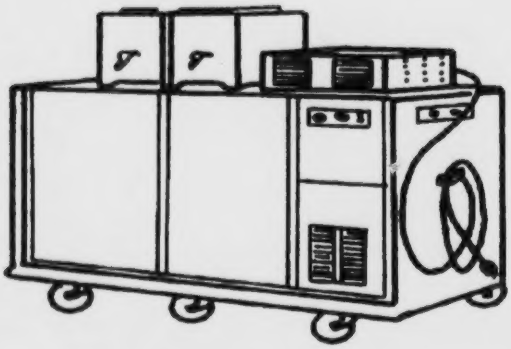
Cold Holding and Serving Units



Cold Food Server

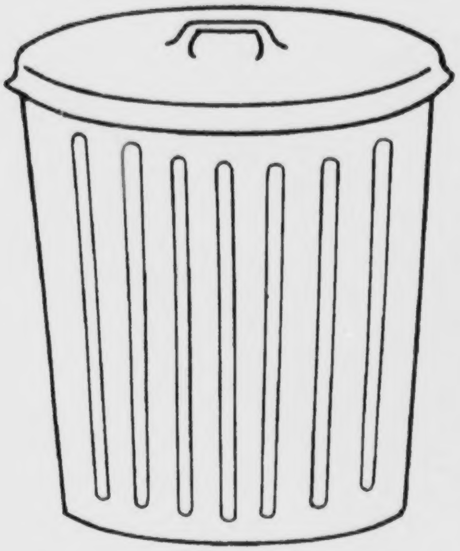


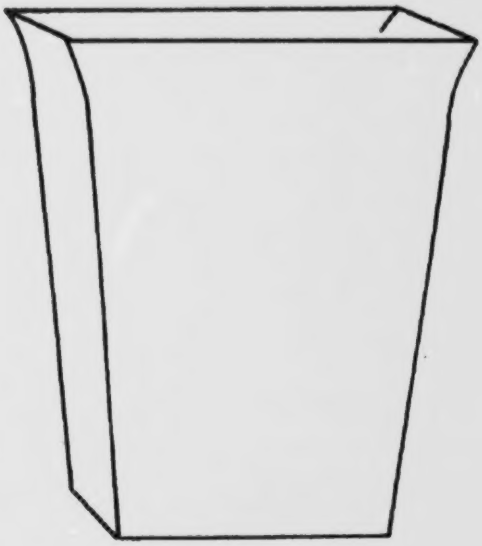
Salad Case

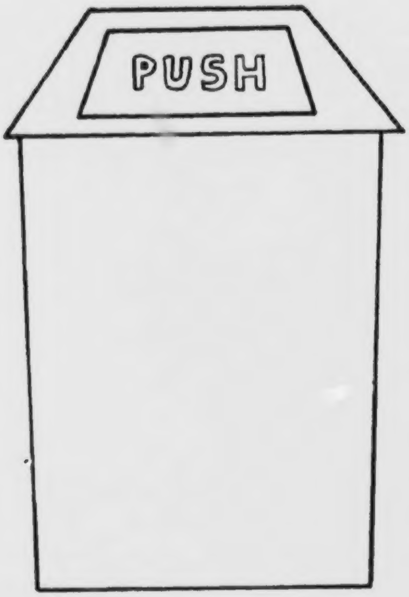


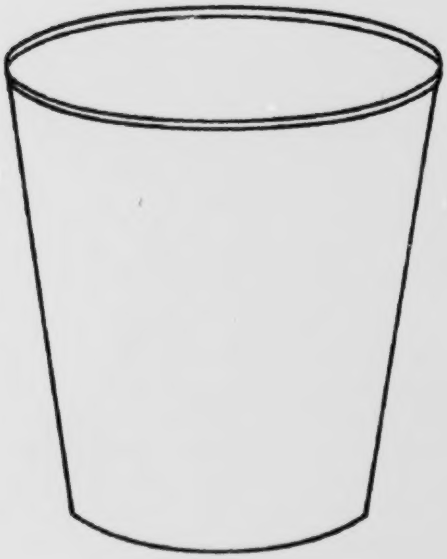
Cold Food Server

Trash or Garbage Cans

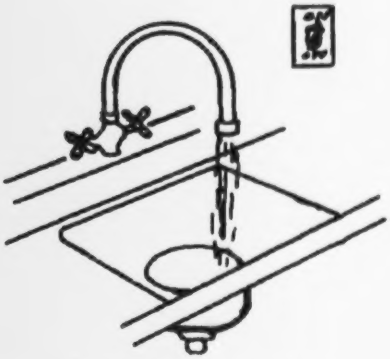




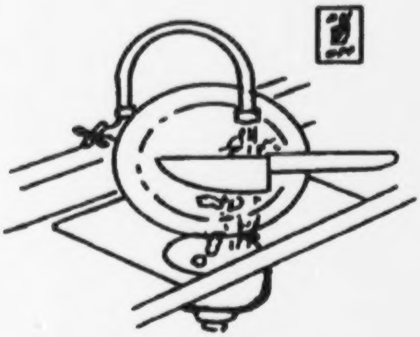




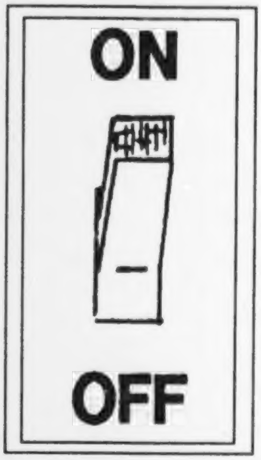
Steps for Operating the Garbage Disposer



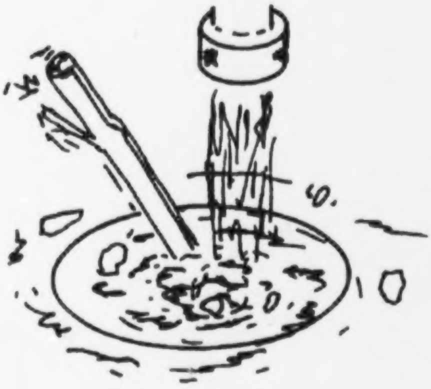
Turn on the water.



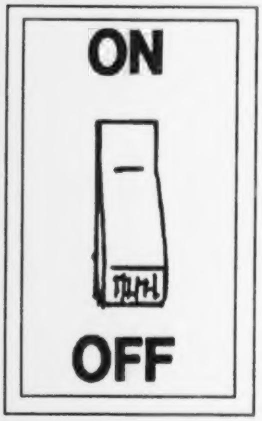
Put in food waste.



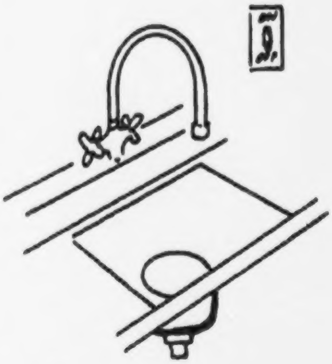
Flip on the switch.



Let disposer grind waste.

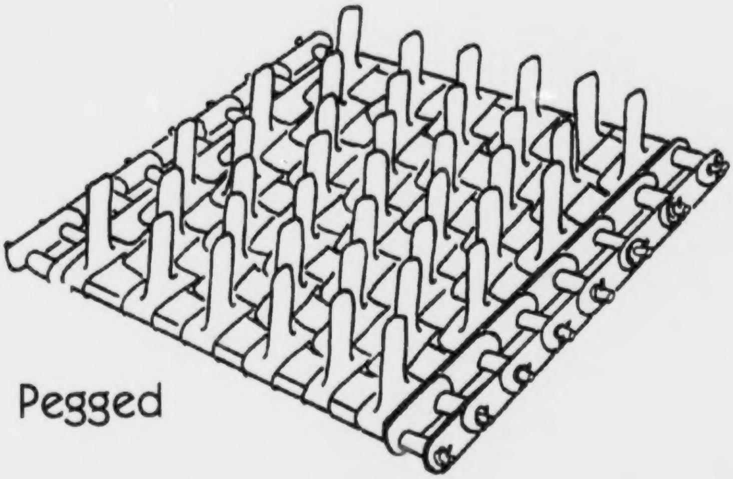


Flip off the switch.

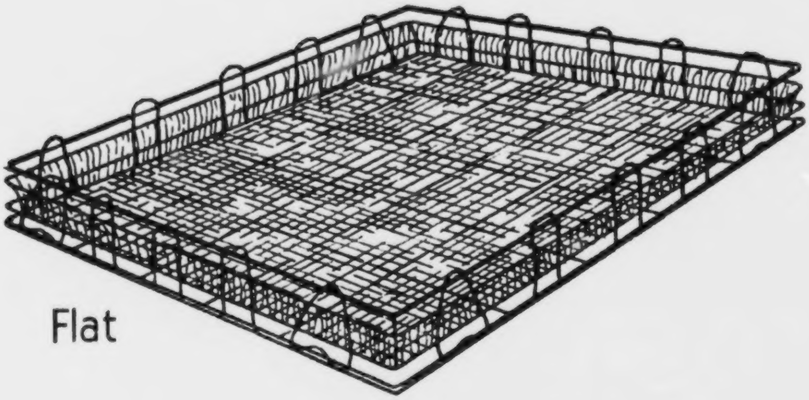


Turn off the water.

Dish Machine Racks



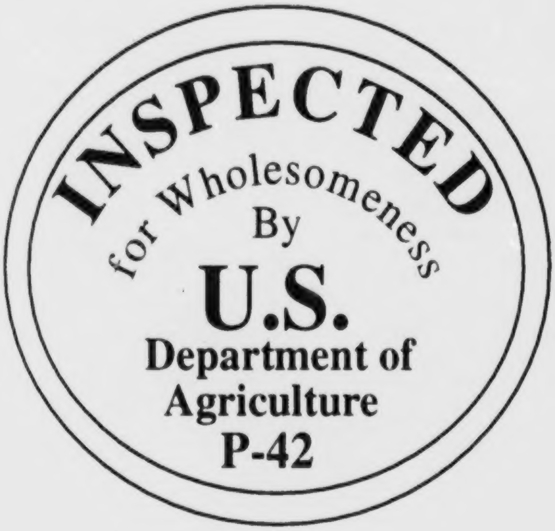
Pegged

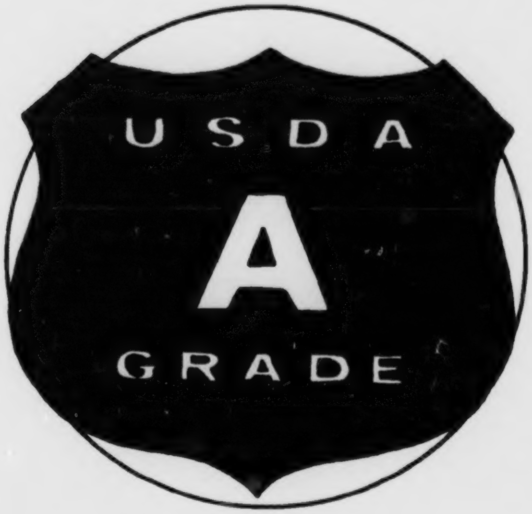


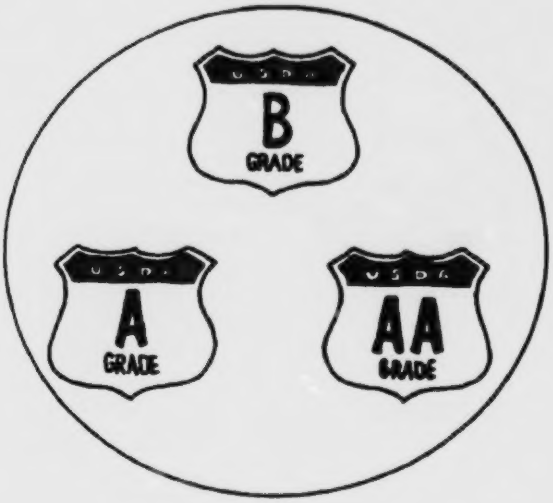
Flat

TA 77

USDA Grade Labels


INSPECTED
for Wholesomeness
By
U.S.
Department of
Agriculture
P-42


USDA
A
GRADE


USDA
B
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GRADE

TA 78

Food Labels

Chili with Beans*

LESUPREME
Chili with beans

The Hot Pepper
Company

Net WT. 36 oz. (2 lb. 4 oz.)

Nutrition Facts

Serving Size 1/2 cup (114g)
Servings Per Container 4

Amount Per Serving

Calories 90	Calories from Fat 30
	% Daily Value*
Total Fat 3g	**5%**
Saturated Fat	**0%**
Cholesterol 0mg	**0%**
Sodium 300mg	**13%**
Total Carbohydrate 13g	**4%**
Dietary Fiber 3g	**12%**
Sugars 3g	
Protein 3g	

Vitamin A	**80%**	•	**Vitamin C**	**60%**
Calcium	**4%**	•	**Iron**	**4%**

*** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher lower depending on your calorie needs:**

	Calories	**2,000**	**2,500**
Total Fat	**Less than**	**65g**	**80g**
Sat Fat	**Less than**	**20g**	**25g**
Cholesterol	**Less than**	**300mg**	**300mg**
Sodium	**Less than**	**2,400mg**	**2,400mg**
Total Carbohydrate		**300g**	**375g**
Fiber		**25g**	**30g**

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

LESUPREME
Chili with Beans

The Hot Pepper
Company

Net WT. 36 oz. (2 lb. 4 oz.)

Recipe Components

***Note to Teacher:** In order to show the different parts of a recipe, one of the following techniques may be used. Use quantity recipes from two or three sources so that students get experience in locating information on recipes written in different formats.

1. Use one transparency sheet. As you talk about a recipe, write the parts on the transparency with different colors of ink. If ink is not available, use symbols such as squares, triangles, or circles.

2. Have a recipe already written on a transparency. Place the transparency on the overhead projector and cover it with a sheet of paper. As you talk about the different parts, reveal the portion of the recipe you are explaining.

3. Use eight overlay transparency sheets and write in different colors of ink on each transparency one part of the recipe.

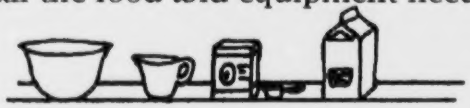
Sheet	Color of Ink	Part of Recipe
1	Red	Name of Recipe
2	Brown	Yield
3	Green	Ingredients
4	Orange	Measurements
5	Blue	Temperature
6	Yellow	Cooking Time
7	Black	Instructions
8	Purple	Utensils

How to use a Recipe

1. Read the whole recipe before you start to prepare the food.

2. Know words and amounts before you begin. Ask questions, if necessary.

3. Get out all the food and equipment needed.



4. Weigh or measure all ingredients.

5. Follow each direction in order.

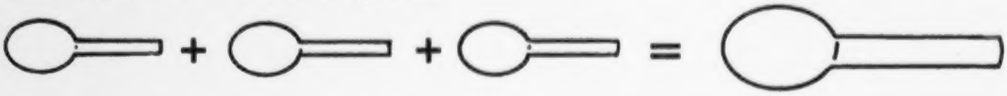
① Sift flour.
② Add milk.
③ Stir.

6. Keep the area clean while working.

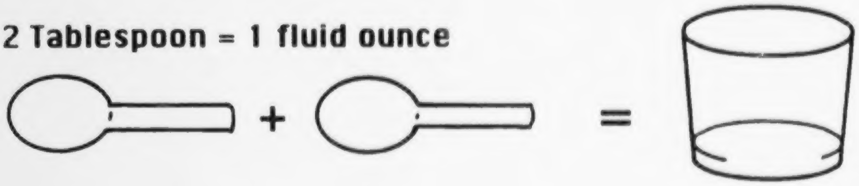
7. Remember sanitation and safety every step of the way.

Table of Measurements

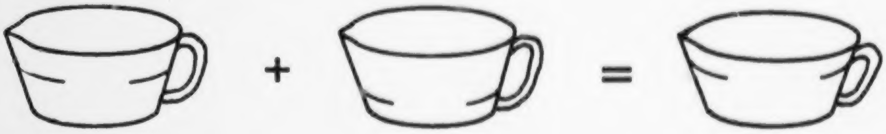
3 teaspoons = 1 Tablespoon



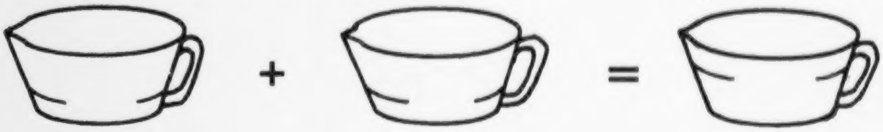
2 Tablespoon = 1 fluid ounce



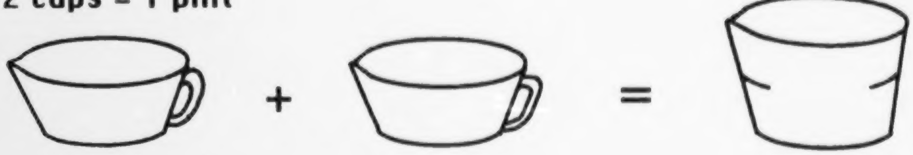
1/2 cup + 1/4 cup = 3/4 cup



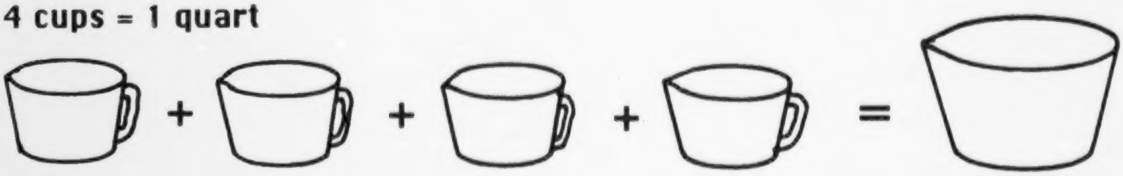
1/3 cup + 1/3 cup = 2/3 cup



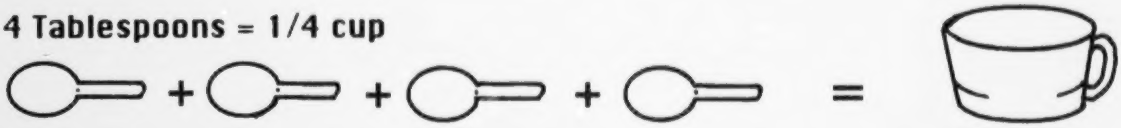
2 cups = 1 pint



4 cups = 1 quart



4 Tablespoons = 1/4 cup



NOTE TO TEACHER: Cut out flannel measuring cups and spoons so that they are the actual size of a cup or spoon. Use various colors on the flannel board so it will be attractive. Let students who have a hard time seeing feel the cups and spoons cut out of flannel.

Chef Rummy

Directions: Prepare in advance 23 index cards. Write a food preparation term on the top half of each index card and draw its corresponding picture definition on the bottom half of the same index card. Cut in half and laminate for durability.

Rules: 1. Use 2-4 players.

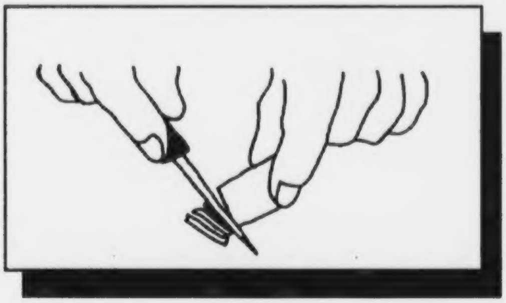
2. Shuffle the cards and deal one at a time face down until each player has 6 cards.

3. Place the remaining cards face down in the center of the table to form the "Drawing Pile". Turn top card face upward beside the drawing pile; this starts the "Discard Pile".

4. Each player tries to get rid of their cards by playing "Books". A book is 2 cards–one with a cooking term and the other with its picture definition.

EXAMPLE

Slice



5. Play is begun by the player at the left of the dealer. The player draws one card from the top of either the "drawing pile" or "discard pile." Books that are formed should lay face up in front of the player.

6. At this point, other players may "challenge" the match of a book. If the book is "incorrect", the player must pick up the cards and put them back into his or her hand. If the "challenge" is incorrect, the player is allowed to discard an additional card (see 7). (See also, Scoring, below.)
7. At the completion of a "challenge", the player then discards one card to the discard pile. Each player may form more than one book but may only draw and discard once. (See 6, incorrect "challenge".)
8. This order of draw, play, and discard must be followed, unless a player is unable to play or desires to hold back cards to block opponents.
9. If all cards in the drawing pile have been used before someone wins, the discard pile may be shuffled and turned face down to form a new drawing pile.
10. The game ends when a player clears his or her hand of all cards or when no cards remain in both the drawing and discard piles.

SCORING

- +4 ⇒ for player going out first.
- +1 ⇒ for each book any player has made.
- +3 ⇒ for challenger–if challenge is correct.
- −3 ⇒ for challenger–if challenge is incorrect.
- +3 ⇒ for player–if the challenger is incorrect.
- −1 ⇒ for each card left in hand.

A player with a total of 50 points wins the game!

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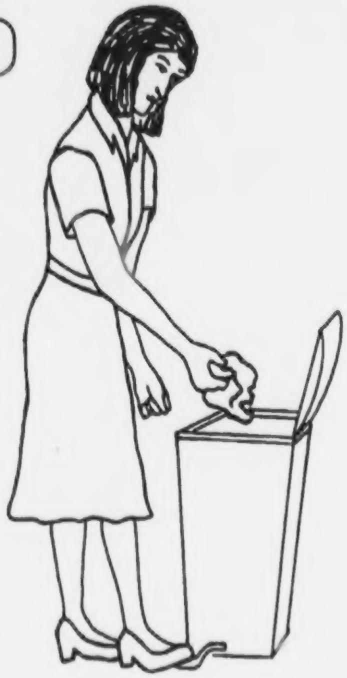
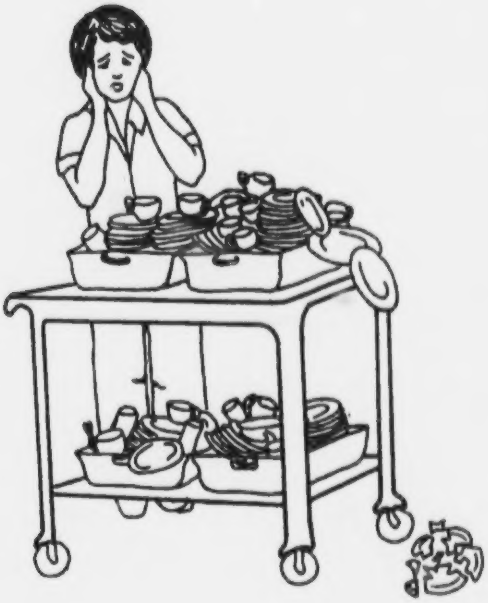
[1] Developed by Mrs. Francis Whitaker, CVAE Teacher, Fort Worth, Texas.

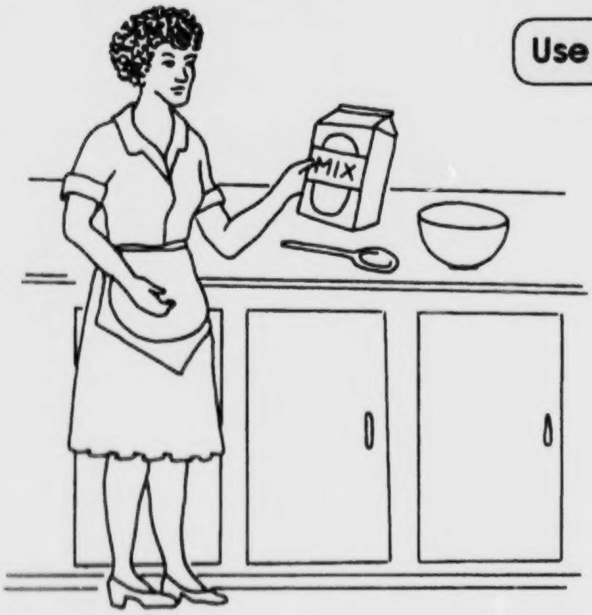
Saving Time and Energy

Keep a trash can by the work area.



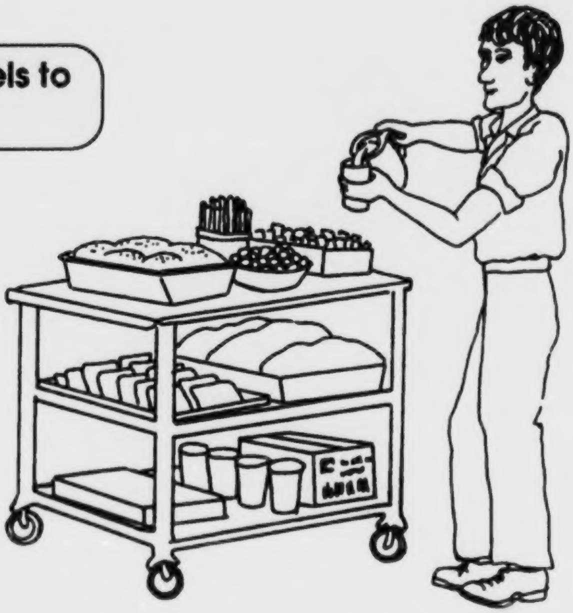


- Never overload carts.
- Load carts carefully to avoid slipping.
- Move slowly when pushing carts.

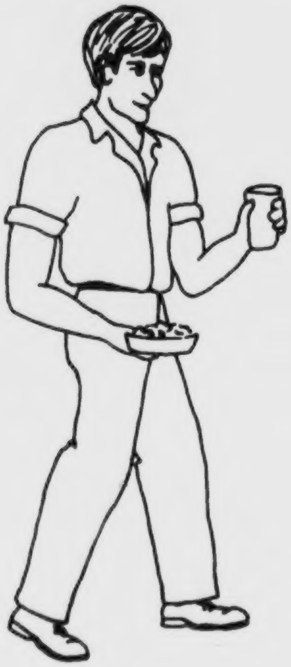


Use prepared mixes to save time.

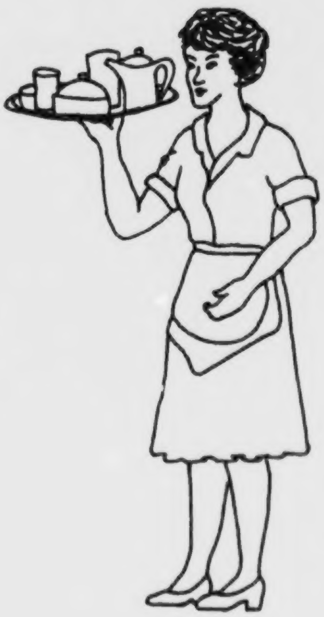
Use carts with wheels to make work easier.



Carry items on trays to make it easier, quicker, and more efficient.



No



Yes

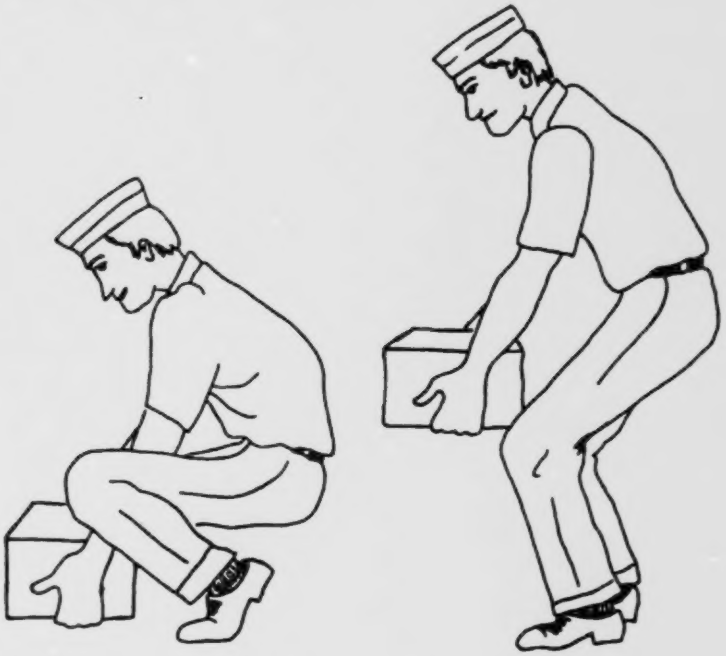
Correct Lifting Techniques

If an Object Feels too Heavy_

- Get someone to help
- Split the load— make two trips
- Get a hand truck
- Roll it
- Drag it
- Push it along on the corners

Tips:

Squat close to the load.
Keep your back straight as possible.
Grip the object firmly.
Hold the load as close to your body as possible.
Lift by pushing up with the leg muscles.

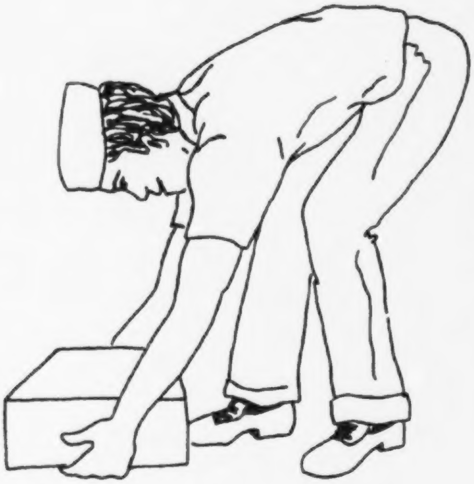


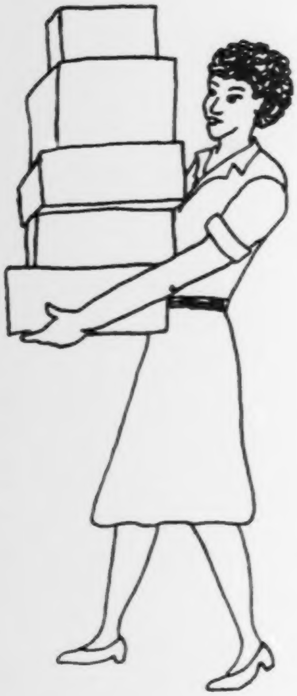
- ❀ Place your feet about a foot apart for good balance and a firm base.
- ❀ Squat close to the load, keeping your back as straight as possible.
- ❀ Grip the object firmly and lift by pushing up with your leg muscles.
- ❀ Hold the load close to your body and rise.

Incorrect Lifting Technique

Lifting

Lift with the leg muscles rather than with the back to help prevent back injuries.





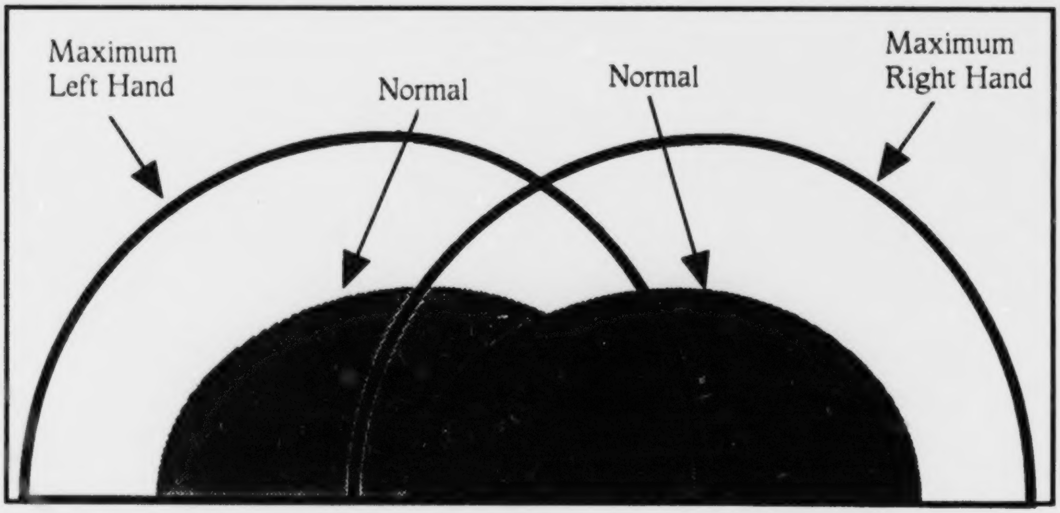
Carrying

Never carry loads that prevent you from seeing where you are going!

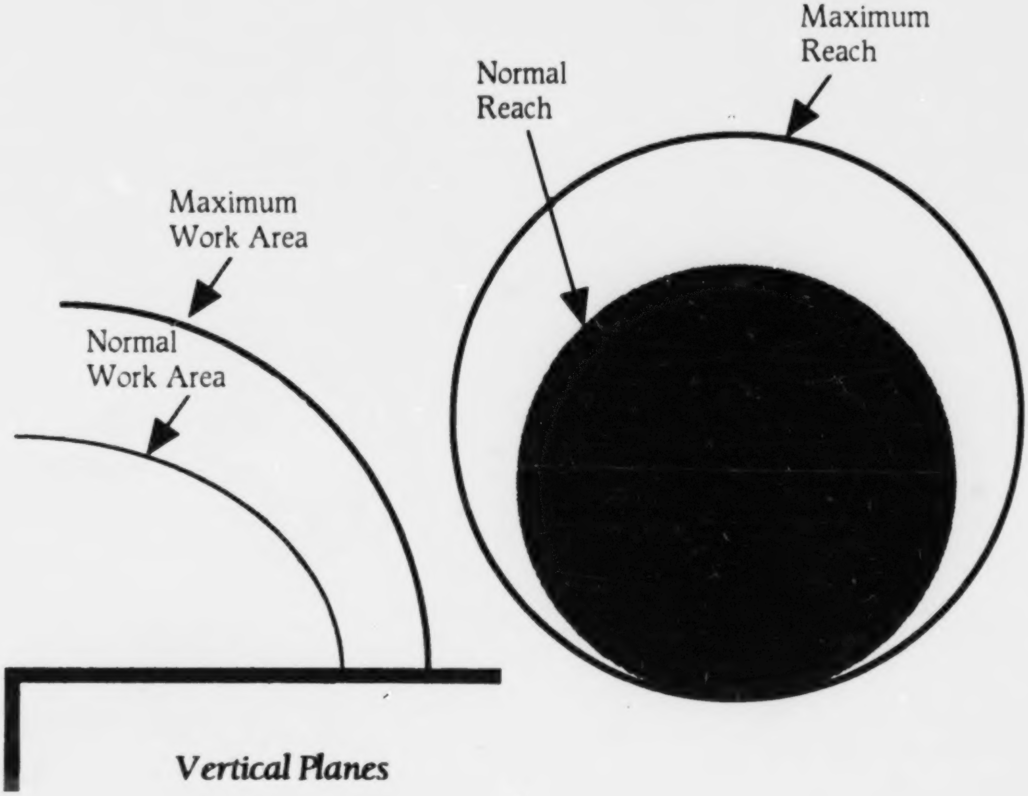
Watch your step!

TA 84

Normal and Maximum Work Areas


Maximum
Left Hand
Normal
Normal
Maximum
Right Hand

Horizontal Plane

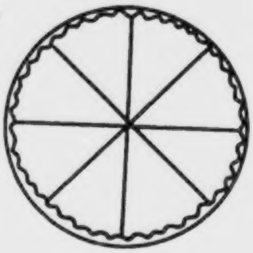

Maximum
Reach
Normal
Reach
Maximum
Work Area
Normal
Work Area

Vertical Planes

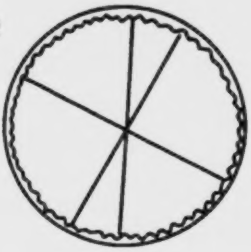
Can You Decide Which is Portioned Correctly?

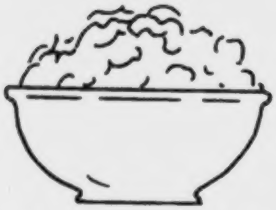
Teacher: Enlarge these pictures so you can draw them on a poster board and all students will be able to see them.

Pie

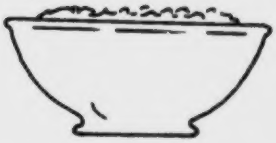


Pie

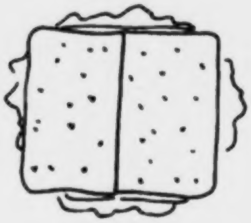




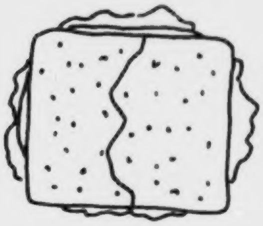
Vegetables— Creamed Potatoes



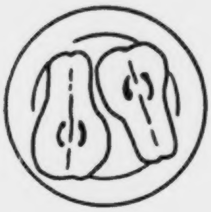
Vegetables — Creamed Potatoes



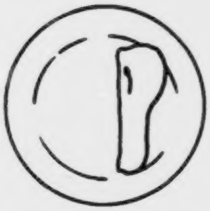
Sandwich



Sandwich



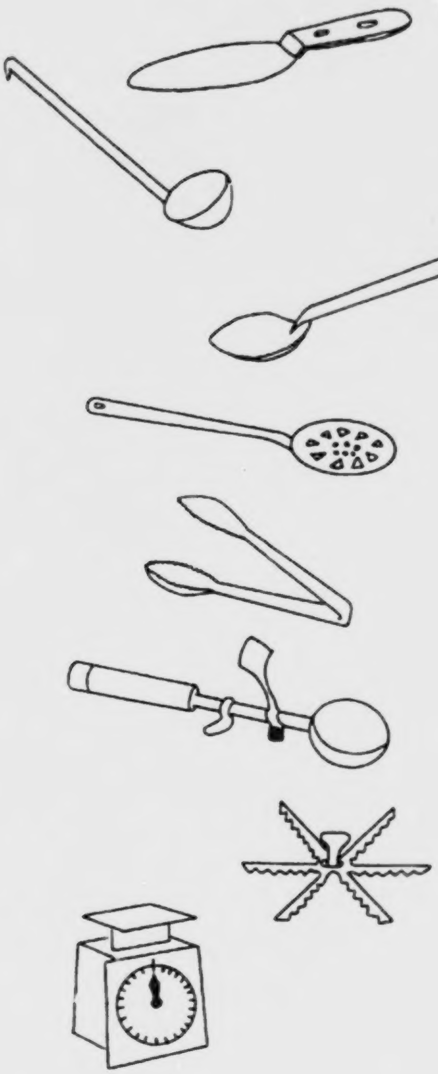
Fruit — Pear



Fruit — Pear

TA 86

Portioning Tools



Pie Knife or Server

Ladle

Serving Spoon

Pierced Spoon

Tongs

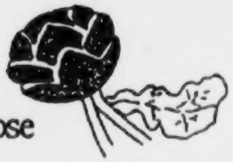
Dipper

Pie Marker

Scale

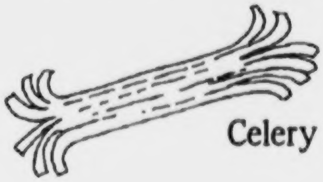
Fruit and Vegetable Garnishes

Wash radishes and cut off the root, leaving an inch of stem. Hold radish by stem, and make overlapping cuts down and into sides. Do not cut completely through the skin. Place in cold water to make the "petals" open and remain crisp.



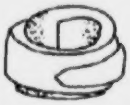
Radish Rose

Cut celery into pieces about 2 1/2" long. Make short cuts, close together in one end. The other end may be cut the same way or left as is. Place in cold water to curl. Green onion stems can be cut in the same way and will fan in cold water.



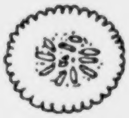
Celery Fan

Peel a large, thick carrot, then cut very thin slices lengthwise with the peeler. Wrap slice around finger and secure with toothpick. Put in cold water to crisp. Remove toothpick before serving.



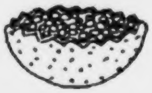
Carrot Curl

Wash cucumber. Do not peel. Pull prongs of fork down all sides lengthwise. Slice as desired.



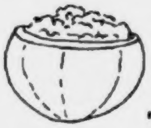
Scored Cucumber

Cut orange or grapefruit in half. Remove pulp. Make saw-toothed edges with knife, if desired. Fill with salad or fruits.



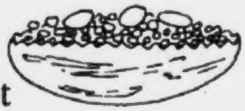
Citrus Cup

Slice off top of tomato, hollow out a small portion. Place filling in the depression. Warm in oven before serving.



Tomato Cup

Slice a watermelon lengthwise and hollow out. Use for melon balls or chunks with seeds removed. A saw-tooth or scalloped edge adds to the appearance. Fill with melon balls and other cut fruits.



Melon Basket

TA 88

Individual Work Setup for Preparing Sandwiches

1. Place four stacks of bread on board with seven slices in each back stack.
2. Spread butter or margarine on top four bread slices.
3. Place filling on buttered bread in stack B.
4. Spread filling evenly to edge.
5. Close sandwiches by covering with two slices from stack A. Be sure to place covers on sandwiches with spread side down.
6. Repeat steps 2, 3, 4, and 5 until there are four whole sandwiches in each of the front stacks.
7. Cut sandwiches with knife using a straight downward motion.
8. Store or wrap cut sandwiches.

Set up for Left-hand Worker

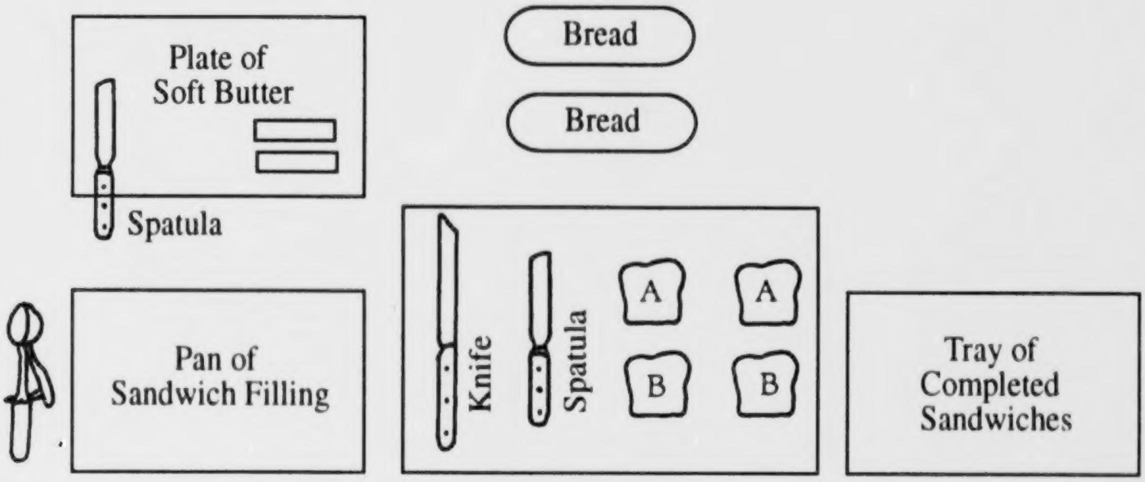
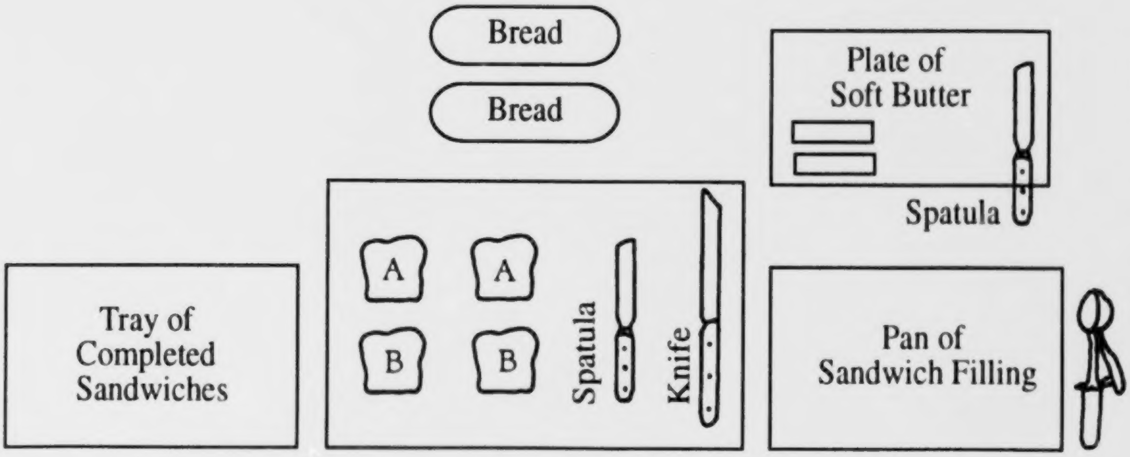


Plate of Soft Butter
Bread
Bread
Spatula
Knife
Spatula
A
A
B
B
Pan of Sandwich Filling
Tray of Completed Sandwiches

Set up for Right-hand Worker


Bread
Bread
Plate of Soft Butter
Spatula
A
A
B
B
Spatula
Knife
Tray of Completed Sandwiches
Pan of Sandwich Filling

TA 89

Salad Scramble
(Teacher Information Sheet)

☛ How to Prepare:

Cut out slips of paper with numbers 1 through 25 – (or number in class) and place in a box.

☛ How to Play:

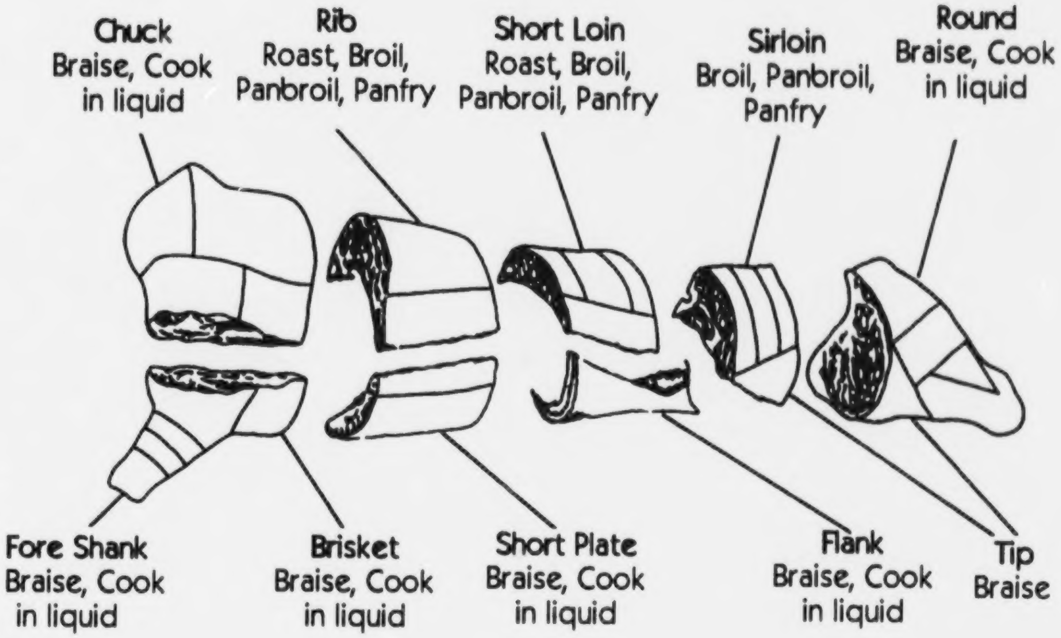
1. Draw a number from a box; this number will determine the order in which questions will be asked.
2. Ask the student who drew Number 1 the first question.
3. If the student answers the question correctly he or she receives 2 points and the person who drew Number 2 is then asked another question.
4. If the first student answers the question incorrectly, he or she receives no points and the person who drew Number 2 is then asked the same question. (NOTE TO TEACHER: Ask 3 students the same question and if Number 3 misses it, explain the correct answer.)
5. Reward each correct answer.

Examples of Questions:

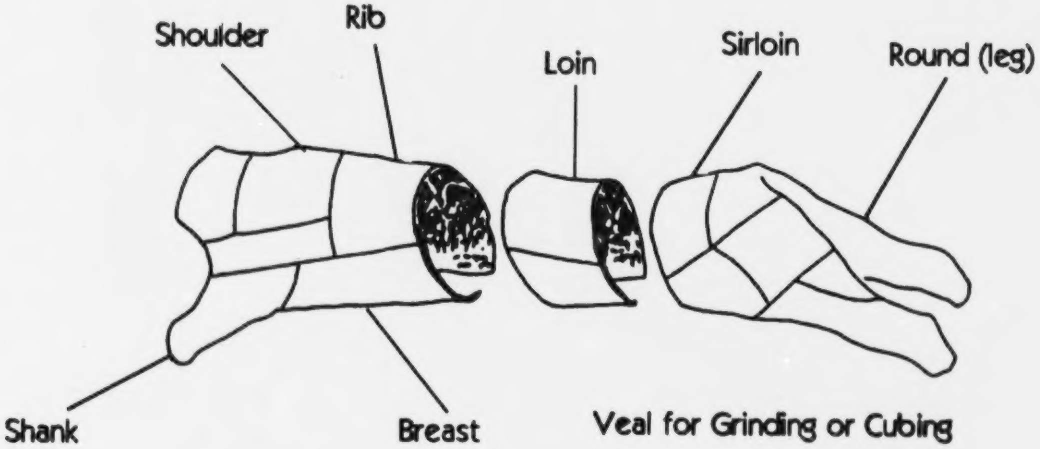
- Which is a crisp vegetable?
- What would you use to garnish a salad?
- Is this tomato with a bruise on it suitable to serve in a salad?
- How do you toss a salad?
- How much salad dressing would you put on a salad?

Beef and Veal Chart

Beef

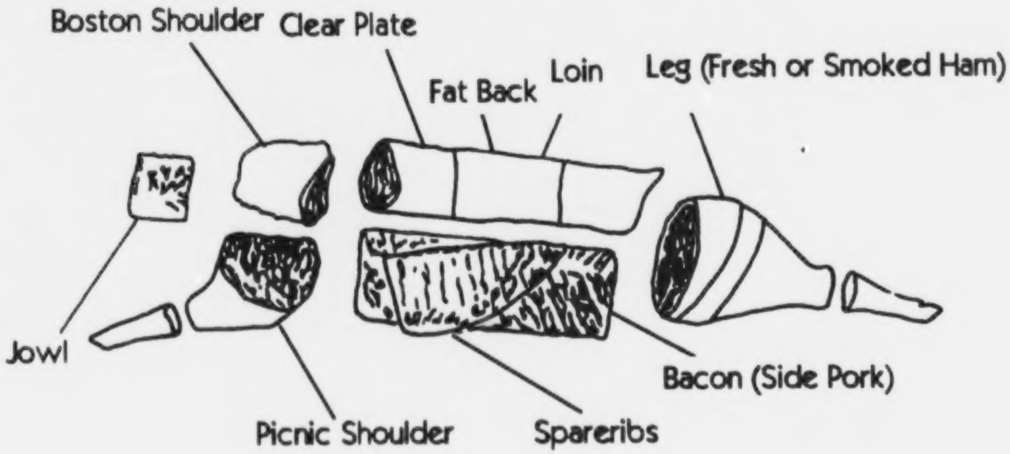

Chuck
Braise, Cook in liquid
Rib
Roast, Broil, Panbroil, Panfry
Short Loin
Roast, Broil, Panbroil, Panfry
Sirloin
Broil, Panbroil, Panfry
Round
Braise, Cook in liquid
Fore Shank
Braise, Cook in liquid
Brisket
Braise, Cook in liquid
Short Plate
Braise, Cook in liquid
Flank
Braise, Cook in liquid
Tip
Braise

Veal

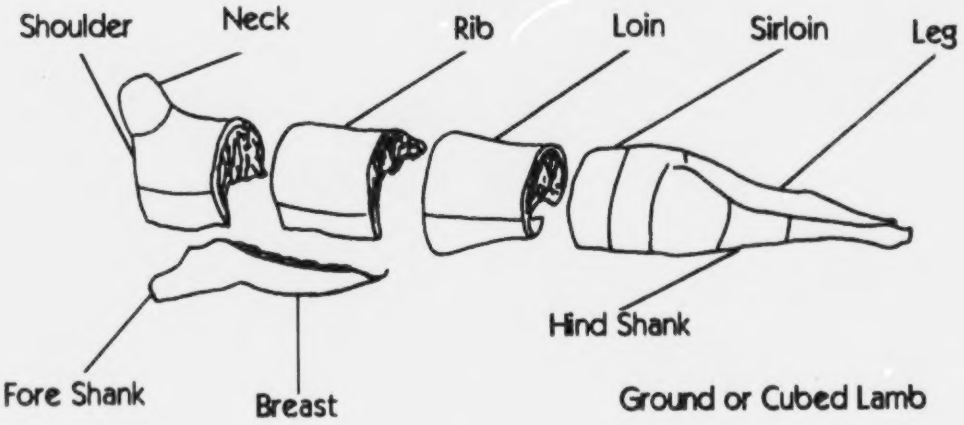

Shoulder
Rib
Loin
Sirloin
Round (leg)
Shank
Breast
Veal for Grinding or Cubing

Pork and Lamb Chart

Pork

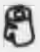

Boston Shoulder
Clear Plate
Fat Back
Loin
Leg (Fresh or Smoked Ham)
Jowl
Bacon (Side Pork)
Picnic Shoulder
Spareribs

Lamb

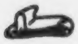

Shoulder
Neck
Rib
Loin
Sirloin
Leg
Hind Shank
Fore Shank
Breast
Ground or Cubed Lamb

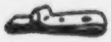
Bone Shapes

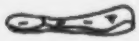
Shoulder/Arm Cuts


Arm Bone

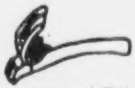
Shoulder Blade Cuts


Blade Bone (near neck)

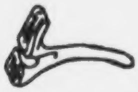

Blade Bone (center cuts)


Blade Bone (near rib)

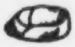
Rib Cuts

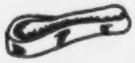

Back Bone and Rib Bone

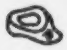
Short Loin Cuts


Back Bone (T-Shape) T-Bone

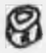
Hip (Sirloin) Cuts


Pin Bone (near short loin)

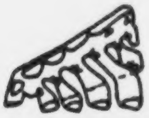

Flat Bone center cuts)


Wedge Bone (near round)

Leg or Round Cuts


Leg or Round Bone

Breast or Brisket Cuts


Breast and Rib Bones

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Meat Cookery

Dry Heat Methods

ROASTING (Tender Cuts)

1. Season
2. Place meat, fat side up, on rack in shallow rasting pan.
3. Insert meat thermometer. Do not let bulb touch bone or rest in fat.
4. Do not add water.
5. Roast in oven at 300-350 °F.
6. Roast to recommend doneness:
   - Beef — 140 °F - 170 °F
   - Veal — 170 °F - 180 °F
   - Lamb — 140 °F - 170 °F
   - Pork — 180 °F - 185 °F
7. Allow meat to rest 15-20 minutes after removing from oven before slicing.

BROILING (Tender Steaks, Chops, Patties)

1. Trim and slash fat around edges of steaks or shops to prevent curling.
2. Preheat broiler or grill.
3. Place meat on rack of broiler pan 3-5 inches from heat source.
4. Broil until meat is brown.
5. Season.
6. Turn and broil until done.

Panbroiling (Less Tender Cuts)

1. Season, if desired
2. Place meat in heavy skillet.
3. Do not add fat or water. Do not cover.
4. Cook at medium temperature and turn often.
5. Pour fat from pan as it accumulates.

Panfrying (Thin or Tenderized Cuts)

1. Add a small amount of oil to pan.
2. Season, flour, or coat meat.
3. Brown meat on both sides.
4. Do not cover.
5. Cook at medium temperature, turning occasionally until done.

Moist Heat Methods

Braising (Less Tender Cuts)

1. Season, coat, and/or flour.
2. Brown meat on all sides in heavy pot or skillet.
3. Add a small amount of water or liquid.
4. Cover tightly.
5. Cool at low temperature until tender.

Cooking in Liquid (Less Tender Cuts)

1. Season, coat, and /or flour.
2. Brown meat on all sides.
3. Cover meat with water or other liquid.
4. Cover and simmer until tender.
5. Add vegetables, if desired, during last part of cooking time.

Poultry Cookery

Dry Heat Methods

Frying

1. Cut poultry into serving pieces.
2. Rinse pieces and pat dry.
3. Season, coat, and/or flour.
4. Heat a small amount of oil in skillet.
5. Place pieces in hot fat.
6. Turn occasionally to brown evenly.
7. Reduce heat. Cover and cook until tender.
8. Drain on paper towels.

Ovenfrying (Follow steps 1-3 above)

4. Place pieces shallow baking dish, skin side down.
5. Bake at 375 °F for about an hour.

Broiling

1. Cut into halves, quarters, or pieces.
2. Place on broiling pan, skin down.
3. Brush each piece with butter or sauce.
4. Place pieces about 9 inches from heat. If barbecuing, place pieces about 3-6 inches from hot coals.
5. Turn every 15 minutes until brown and tender.

Roasting

1. Rinse and pat dry.
2. Fold wings to back.
3. Tie legs and tail together with string.
4. Place breast up on roasting rack in shallow pan.
5. Brush with fat.
6. Place tip of meat thermometer in thickest part of thigh or breast.
7. Place in 325 °F oven.
8. Poultry is cooked when internal temperature is 185 °F for leg moves easily in socket.
9. After removing from oven, allow to stand for 10-20 minutes prior to carving.

Braising (Fricassee)

1. Cut into pieces. Rinse and dry.
2. Season and/or flour.
3. Brown pieces in small amount of fat.
4. Add small amount of liquid.
5. Cook in oven at 325 °F or simmer on range-top.
6. Cook until tender.

Stewing

1. Cut in halves, quarters, or pieces.
2. Rinse pieces. Put in deep pan.
3. Add seasoning and add water to cover meat in pan.
4. Bring to a boil, then reduce heat.
5. Cover pan with lid.
6. Simmer until tender.

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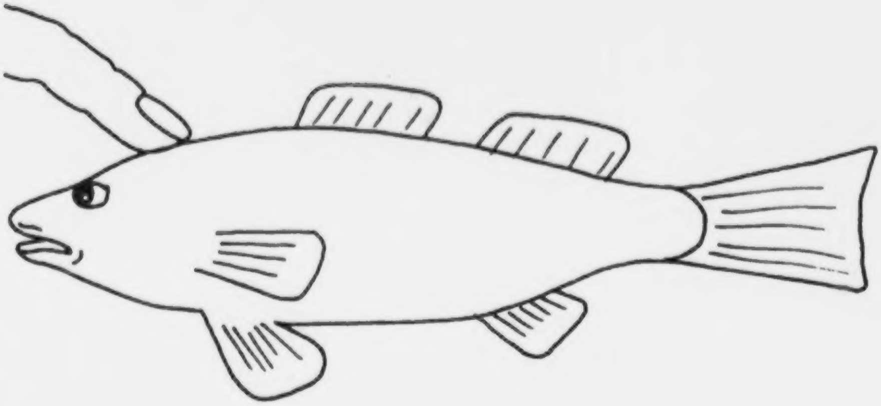
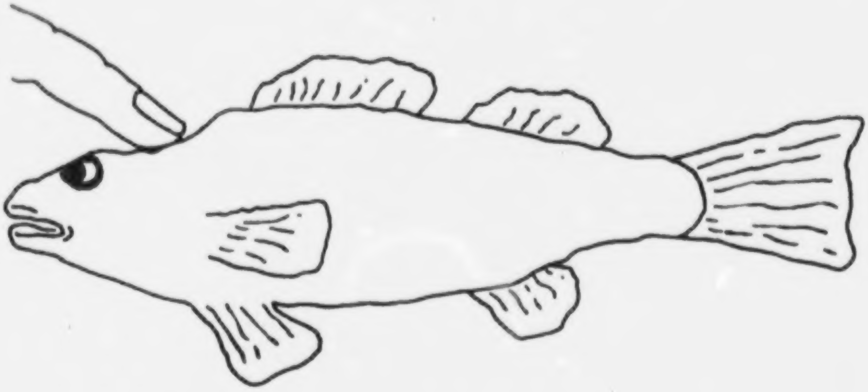
Characteristics of Fresh Fish

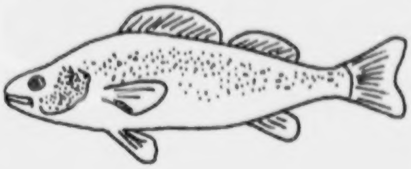
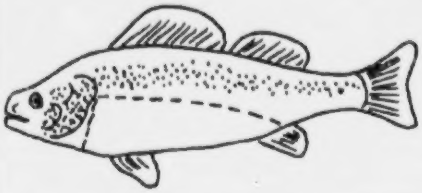
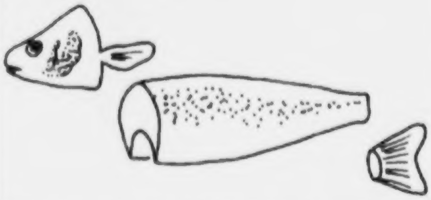
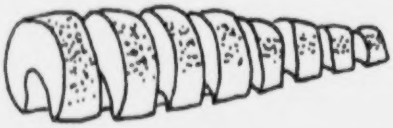
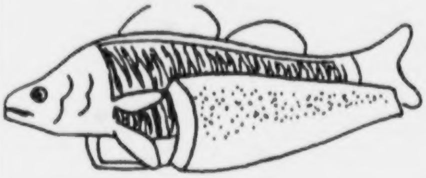
FRESH
- Firm flesh
- Bright eyes
- Red gills
- Mild odor



Not Fresh
- Spongy flesh
- Dull, sunken eyes
- Greyish gills
- Strong odor



Types and Cuts of Finfish

Appearance	Form	Description
	Whole	Fish are simply caught, iced, and delivered.
	Drawn	Fish are gutted, iced, and delivered
	Pan-dressed	Fish are gutted, scales and skin removed. Heads, tails, fins, and bones may be removed too.
	Steak	Slices are cut across the body of a large pan-dressed fish.
	Fillet or filet (fil-lay')	The sides of a fish are removed from the bone.

Fish Cookery

Dry Heat Methods

Baking

1. Place in a greased baking dish.
2. Season.
3. Bake at 350°F. until done.
4. Baste with sauce or butter to prevent drying.

Broiling (pieces 1 inch thick)

1. Place on greased broiler pan. Brush with fat or sauce.
2. Place pan 2-4 inches from heat source.
3. Turn fish over halfway through cooking.

Barbecuing

1. Grease the grill well to prevent sticking.
2. Cook about 4 inches from coals.
3. Baste with sauce or in marinade.
4. Turn thick pieces once.

Frying

1. Dip pieces in liquid or batter, then in seasoned flour, cornmeal, or crumbs.
2. Heat fat to 375°F.
3. Cook until golden brown.

Ovenfrying

1. Dip and coat pieces as for regular fried fish.
2. Place in well-greased baking pan.
3. Baste with sauce or marinade.
4. Turn thick pieces at least once.

Moist Heat Methods

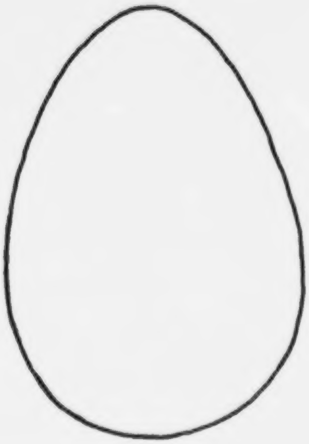
Poaching

1. Wrap fish in cheesecloth
2. Add liquid or water to cover fish
3. Simmer until fish is cooked.

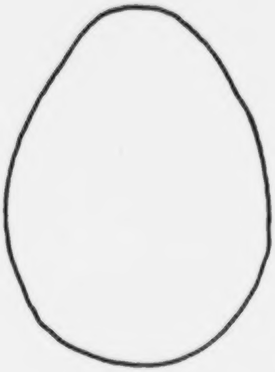
Steaming

1. Wrap in cheesecloth. Leave shellfish in shell.
2. Place on greased rack over boiling water.
3. Steam until done.

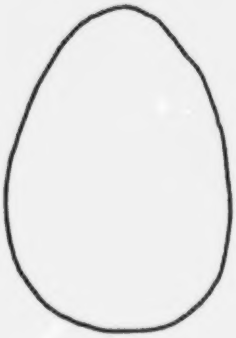
Sizes of Eggs



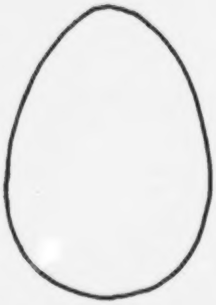
Large



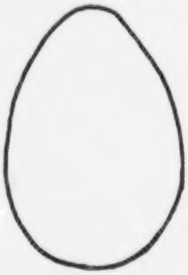
Extra Large



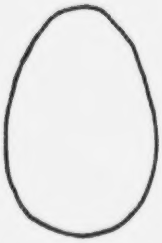
Jumbo



Medium



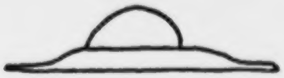
Small



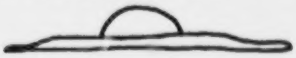
Peewee

Grading of Eggs

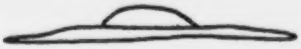
GRADE AA EGGS. The yolk is firm and upstanding. There is a large amount of thick white. It stands high and firmly around the yolk. There is only a small amount of thin white.



GRADE A EGGS. The yolk is round and upstanding. There is a large amount of thick white. It stands fairly well around the yolk. There is a small amount of thin white.



GRADE B EGGS. The yolk is flattened. The thick white is medium in amount and flattened. There is a medium amount of thin white.



U.S. Weight Classes for Eggs

Jumbo — 30 oz.

Extra Large — 27 oz.

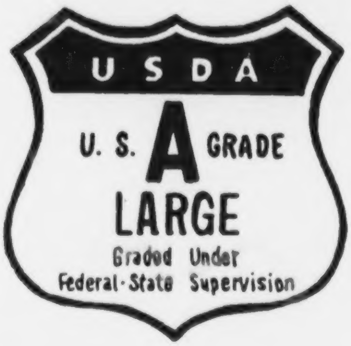
Large — 24 oz.

Medium — 21 oz.

Small — 18 oz.

Peewee — 15 oz.

U.S. Grade Label for Eggs



NOTE: Number of ounces indicates weight per dozen.

U.S. Standards for Quality of Individual Shell Eggs

Quality Factor	*AA Quality*	*A Quality*	*B Quality*
Shell	Clean, unbroken	Clean, unbroken	Clean to very slightly stained, unbroken
Air Cell	1/8" or less in depth, regular in shape	3/16" or less in depth, regular in shape	3/8" or less in depth, may be free or bubbly
White	Clear, firm	Clear, reasonably firm	Clear, may be slightly weak
Yolk	Outline slighlty defined, almost free from defects	Outline fairly well defined, almost free from defects	Outline well defined, slightly enlarged and flat, may show definite but not serious defects

Egg Cookery

Cooking Eggs in the Shell – Cold Water

1. Place eggs in pan, cover with water one inch above eggs.
2. Place over high heat until the water boils.
3. Cover pan and remove from heat.
4. For soft-cooked, let eggs stand in hot water 1-3 minutes. For hard-cooked, let eggs stand in hot water for 15 minutes.
5. Remove the eggs and cool immediately in cold water to prevent over cooking.

Cooking Eggs in the Shell – Hot Water

1. Put cold eggs in bowl of warm water to prevent cracking during cooking.
2. Bring water in a pan to a boil.
3. Transfer eggs from warm water to boiling water (one inch over eggs).
4. For soft-cooked, cover pan, remove from heat, and let stand 6-8 minutes.. For hard-cooked, reduce heat and simmer for an additional 20 minutes.

Fried Eggs

1. Melt butter in skillet/or lightly spry non-stick pan.
2. Crack eggs into dish.
3. Slip egg into skillet/griddle.
4. Cook slowly.
5. For "sunny-side up," cover egg with a lid to steam the top.
6. For "over-easy," turn eggs over, and cook for several seconds.

Scrambled Eggs

1. Crack eggs into a small bowl and beat with a wire whip or fork.
2. For softer eggs, add one tablespoon of milk or water per egg.
3. Melt butter in skillet or lightly spray non-stick pan with vegetable oil cooking spray.
4. Pour in eggs and cook slowly
5. When eggs begin to set on the sides of the pan, push them to the center of the pan. Repeat several times, but do not stir.
6. Meat, cheese, and/or cooked vegetables can be added.
7. Eggs are ready to serve when thick but moist.

Plain Omelet

1-4. Same as for Scrambled Eggs.
5. When eggs thicken, cover pan. Steam cooks top of omelet.
6. Add meat, cheese, or vegetables if desired.

Baked Eggs

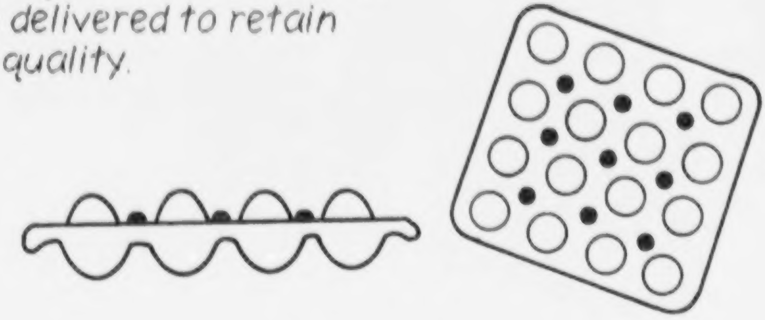
1. Preheat oven to 325°F.
2. Grease a baking dish.
3. Vegetables or meat may be put in bottom of dish, if desired.
4. Crack eggs and slip into dish.
5. Bake 15-20 minutes or until cooked.

Poached Eggs

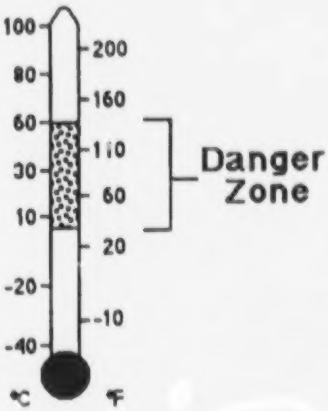
1. Fill pan or skillet with water to cover eggs.
2. Bring water to a boil, reduce heat to simmer.
3. Break eggs into dish. Slip into hot water.
4. Cook 3-5 minutes.
5. Remove eggs with a slotted spoon.
6. Drain and serve.

Storage of Eggs

Eggs should be kept in the cartons in which they are delivered to retain freshness and quality.



Eggs will retain their high quality for weeks at temperatures between 40 and 50°F. Their quality will decline rapidly at room temperature.


100
80
60
30
10
-20
-40
°C
200
160
110
60
20
-10
°F
Danger Zone

Refrigeration helps prevent the growth of salmonella.

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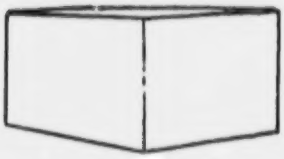
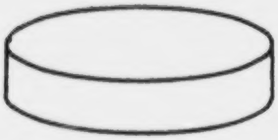
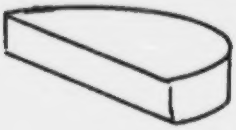
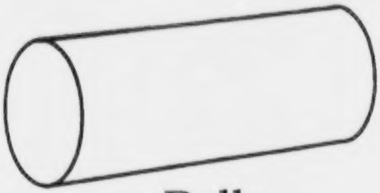
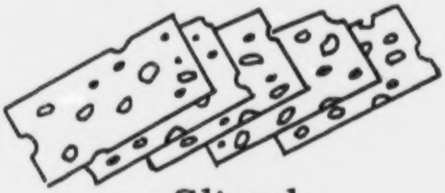
Forms of Cheese

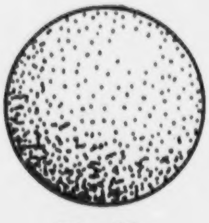

Half-moons

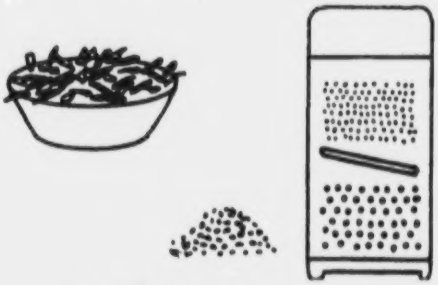

Blocks

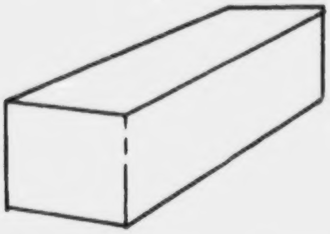

Moons

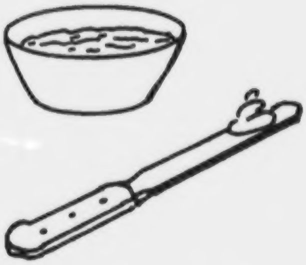

Rolls

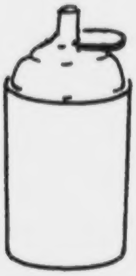

Sliced


Balls


Shredded or Grated

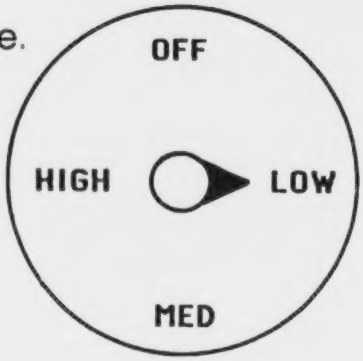

Bricks or Loaves


Dips or Spreads


Pressure Cans

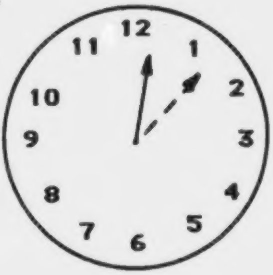
Rules for Cooking Cheese

1 Cook cheese at a low temperature.



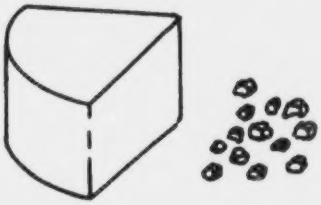
✱ If high heat is used, the cheese will become rubbery.

2 Cook Cheese for a short period of time.



✱ If cooked too long, the cheese will get tough.

3 Cut cheese into small pieces so it melts fast and combines easily.

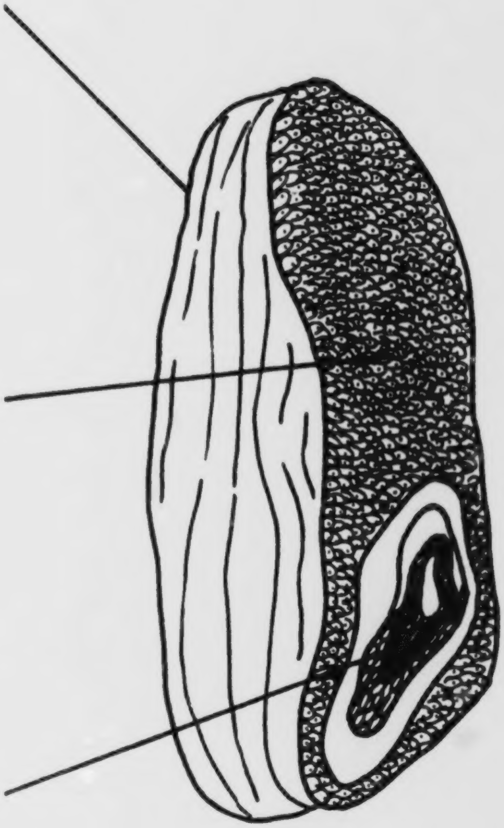


✱ If the cheese is cut into large pieces, it will take too long to cook.

Components of Cereal Grains

Bran

Bran is the outside covering of the grain. It contains fiber and B vitamins. During processing, the bran is removed along with the nutrients it contains.



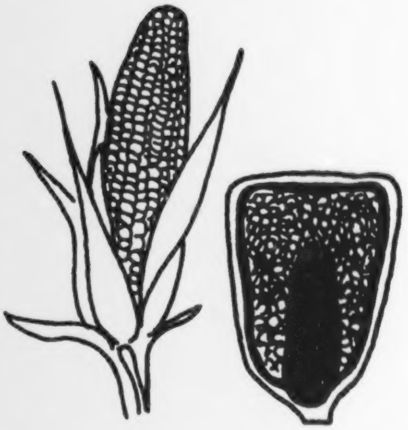
Endosperm

The endosperm is made up mostly of starch and proteins. It is used to make white flour.

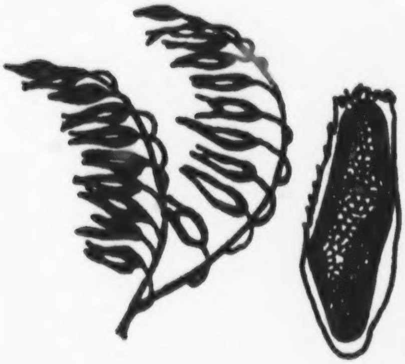
Germ

The germ is the sprouting section inside the kernel from which a new plant grows. It contains minerals, B vitamins, oil, and fat. Because of the oil and fat, products containing the germ will become rancid or spoil quickly. The germ is usually removed during processing.

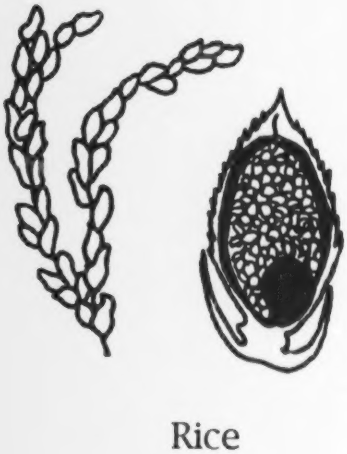
Grains for Breakfast Cereals



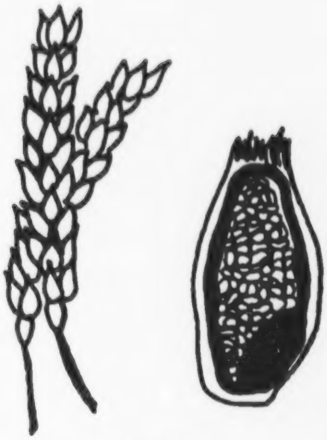
Corn



Oats



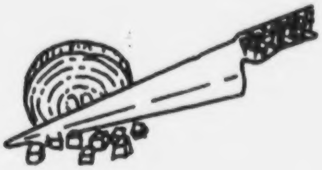
Rice

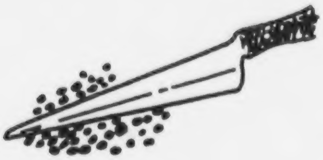


Wheat

Preparing Vegetables in a Variety of Shapes

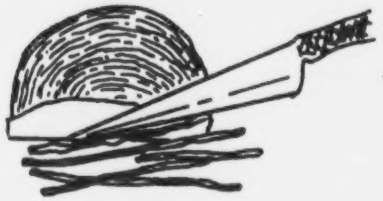
Dicing: Cutting into cubes

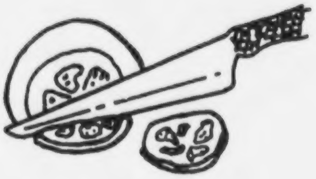




Mincing: Chopping very fine

Shredding: Cutting into thin strips





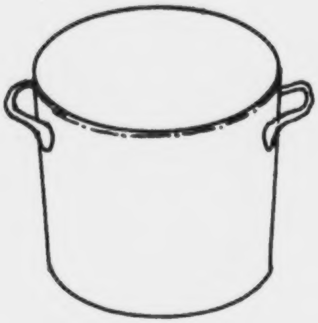
Slicing: Cutting across the face or at an angle

Rules for Preparing and Cooking Fresh and Frozen Vegetables and Fruits

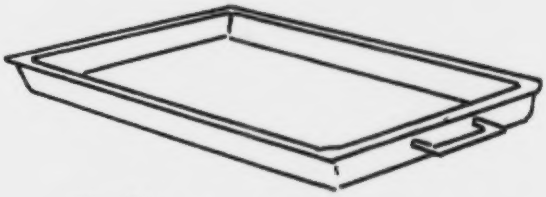
1. Clean fresh vegetables and fruits before cooking.
2. Cut vegetables and fruits into large pieces of the same size.
3. Use only enough water to cover vegetables and fruits.
4. Salt may be added to water.
5. Cook only the amount needed for one meal.
6. Cook until the vegetables or fruits are tender.
7. Save cooking liquid that contains nutrients from vegetables and fruits to be used in sauces or soups.
8. Season vegetables and fruits just before they are served.

TA 108

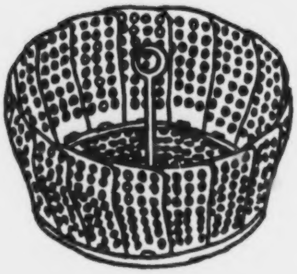
Cooking Methods for Vegetables and Fruits



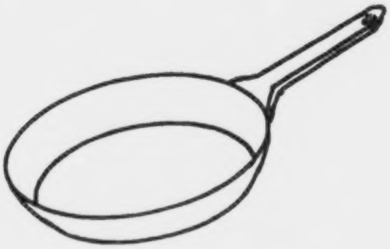
Boiling Can be used for all types of vegetables.



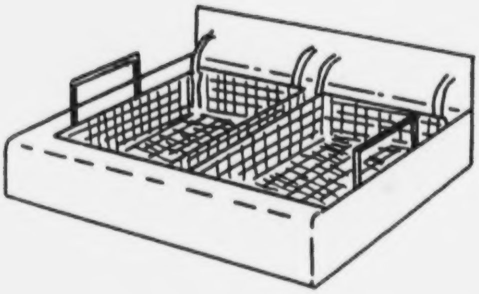
Baking Can be used for baking vegetables and fruits whole or in pieces.



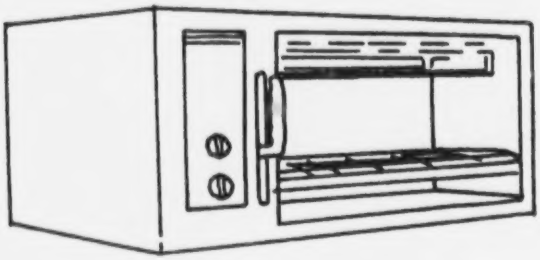
Steaming Is excellent for vegetables. Retains most vitamins and minerals.



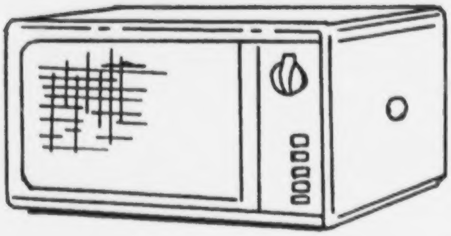
Sauteing Can be used for cooking in a small amount of butter, margarine, or oil.



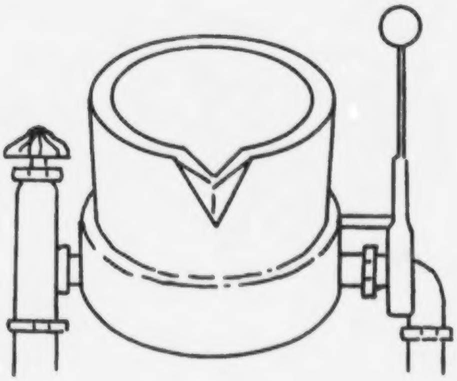
Deep-fat Frying: Frying in deep fat



Broiling: Cooking by exposing food directly to a source of intense heat



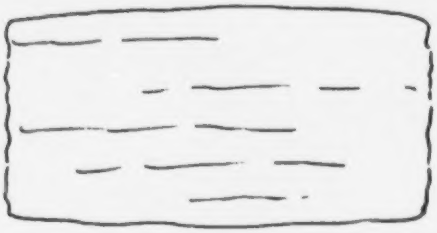
Microwaving: Used for small quantities or for reheating



Pressure Steaming: Can be used for cooking large quantities quickly.

Quality Characteristics of Quick Breads

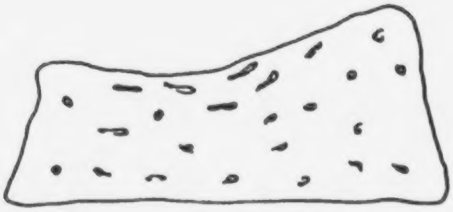
How Do You Rate Biscuits?



The Perfect Biscuit

Biscuits should. . .

- be uniform in size and shape with level tops and straight sides.
- have uniform golden brown tops and bottoms.
- have uniform lightly browned sides.
- be free from yellow or brown spots.
- have a tender crust.
- be moist and tender on the inside.
- have a light, flaky texture, and peel off in thin sheets.
- have a well-blended, pleasing flavor.

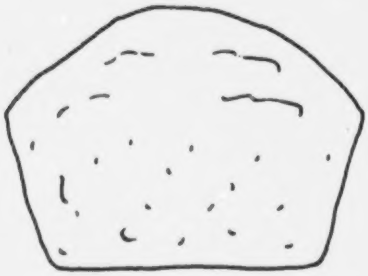


The Throwaway Biscuit

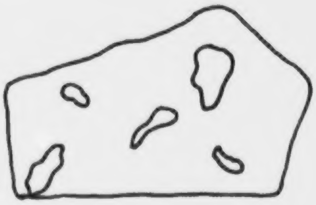
TA 110

Quality Characteristics of Quick Breads

How Do You Rate Muffins?



Properly Mixed Muffin



Overmixed Muffin

Muffins and Quick Breads Should...

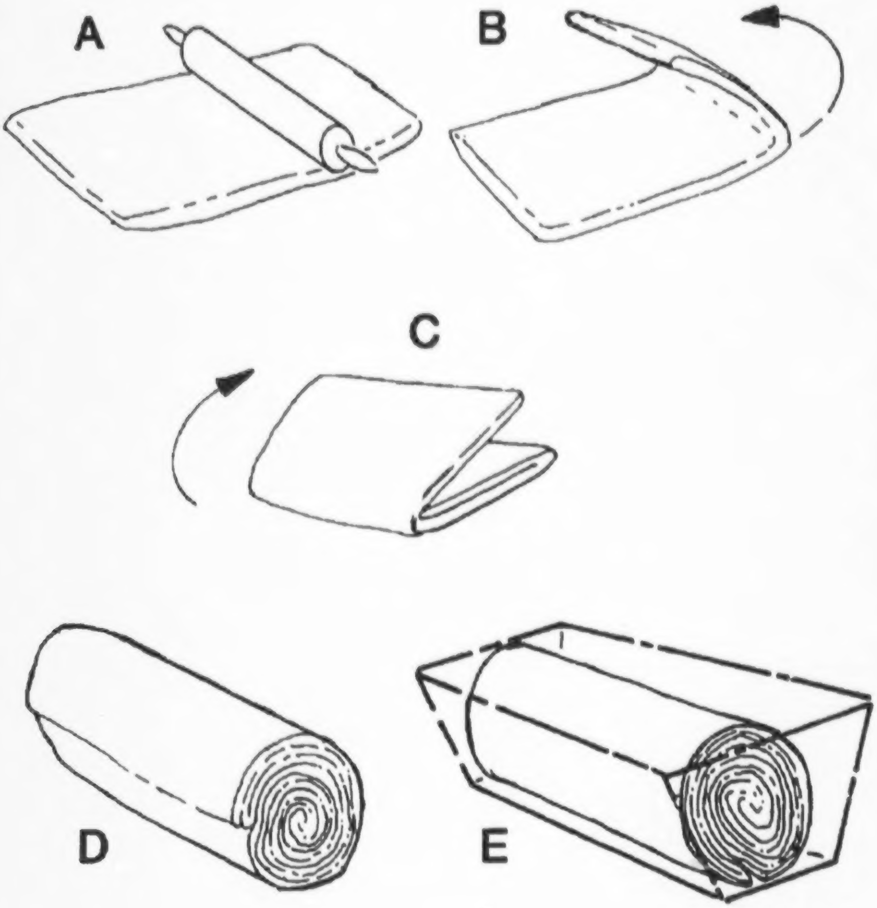
- have a uniform shape and a well-round top with no peaks.
- be uniform in size and fairly heavy for their size.
- have a golden-brown, tender crust that is slightly rough and shiny
- be free from tunnels on the inside.
- have a tender, moist texture.
- have a pleasing, well-blended flavor.

To Test for Doneness...

- Check the color. Crust should be golden brown.
- Look where the top meets the sides of the pan. The product will have pulled away slightly from the sides of the pan.
- Tap the top gently. It should be firm.

Plain Loaf Bread

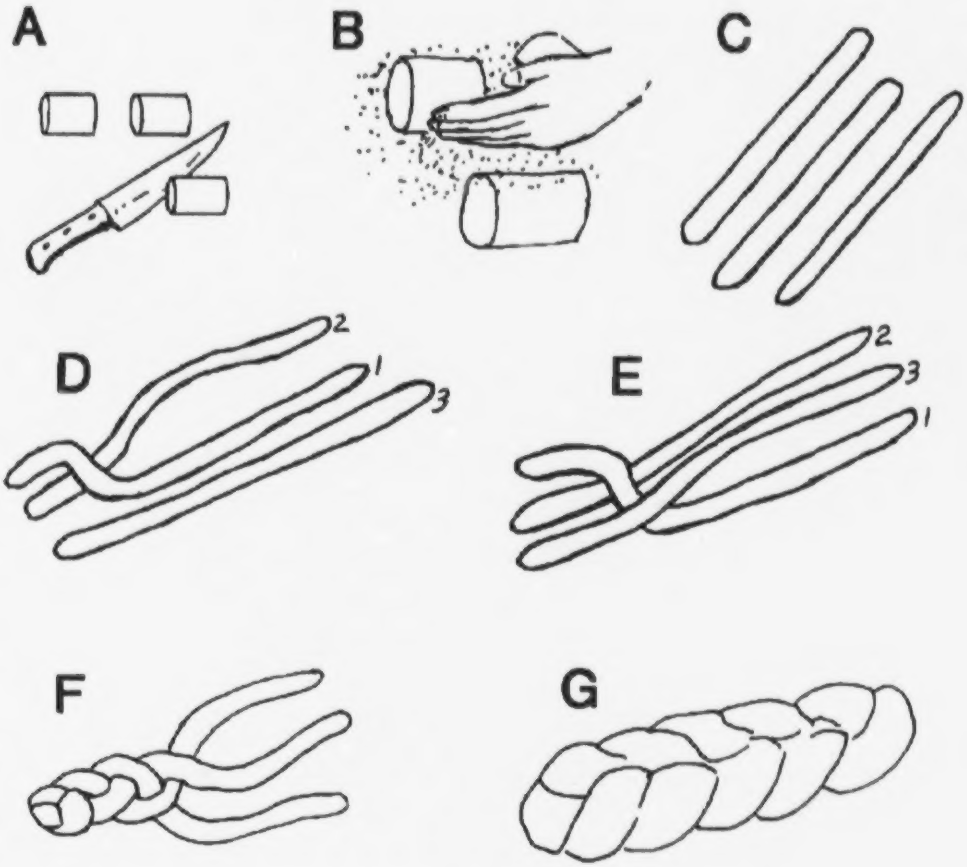
A. Roll dough into a rectangle.
B. Fold one-third of rectangle over center.
C. Fold remaining one-third of rectangle over center.
D. Roll the dough from the short side. Pinch seam edges together.
E. Place in pan with seam on bottom.



TA 112

Braided Loaf

A. Cut dough into three equal pieces.
B. Sprinkle pieces with flour.
C. Roll each piece of dough into a long thin round strip.
D. Line up the three strips. Place strip 1 over 2.
E. Place strip 3 over 1. Place strip 2 over 3. Place strip 1 over 2. Continue alternating outside strips.
F. Seal the three strips together at each end of the braid.
G. See finished braid with sealed ends.

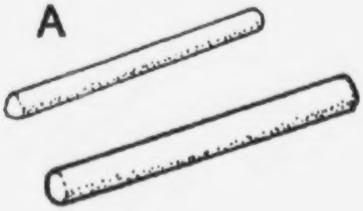


TA 113

Cloverleaf Rolls

A. Shape dough in long rounded strips.
B. Cut the strips into small equal pieces.
C. Round each piece into a small shape.
D. Place three pieces in each greased muffin cup.
E. Let rise, then bake.
F. See finished cloverleaf roll.

A



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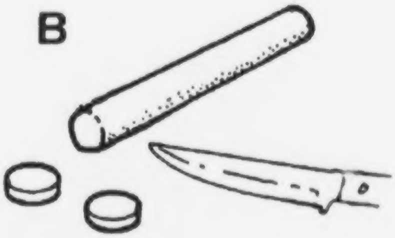

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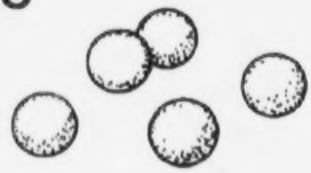

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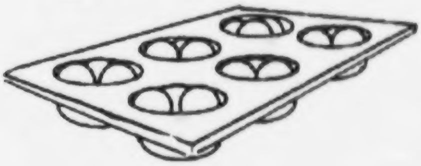

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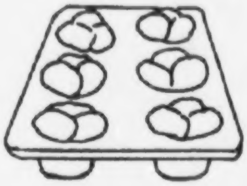

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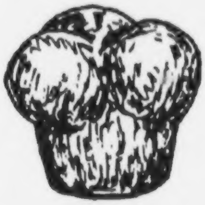
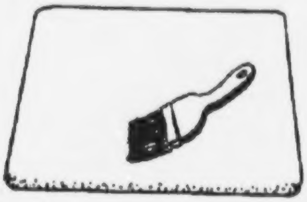


Butterflake Fans

A. Roll dough into a square and spread with melted butter.
B. Slice into strips about 1 1/2 inches wide.
C. Build a stack of six strips.
D. Cut through the stack about every 1 1/2 inches to form rolls.
E. Place rolls in greased muffin pans, cut side up. Let rise. Bake.
F. See finished Butterflake Fan.

A



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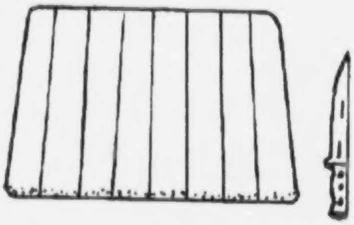

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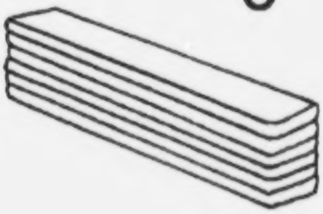

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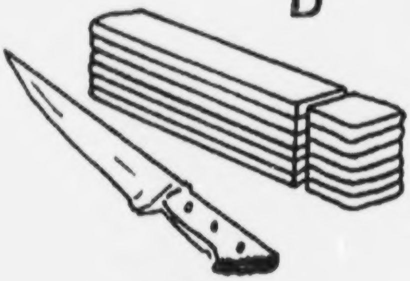

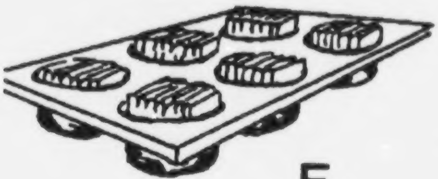

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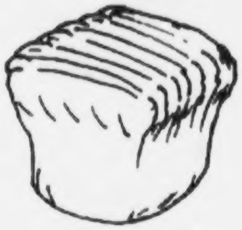


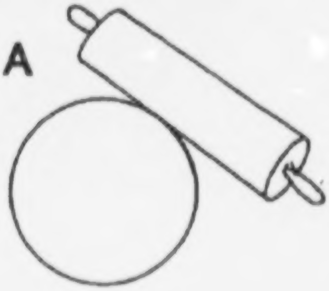
F

TA 115

Crescent Rolls

A. Roll dough into an even circle about 12 inches in diameter.
B. Brush the dough with melted butter and margarine.
C. Use a sharp knife and cut the circle into 16 equal pie-shaped wedges.
D. Roll each wedge tightly, beginning at the wide end. The point will be in the middle of the roll.
E. Place rolls on greased baking sheet with points underneath. Curve to form crescent shape. Let rise. Bake.
F. See finished crescent roll.

A



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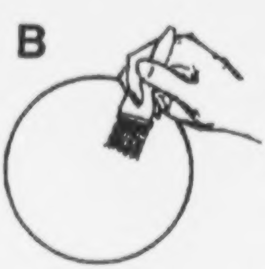

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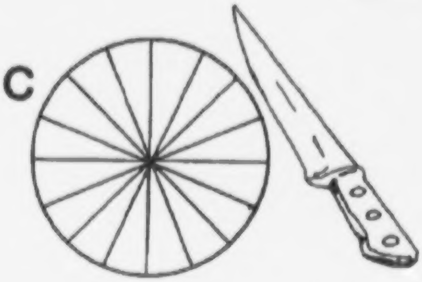

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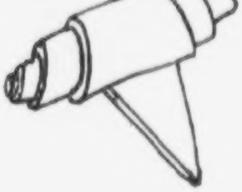
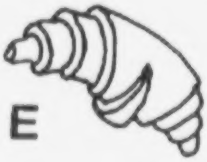


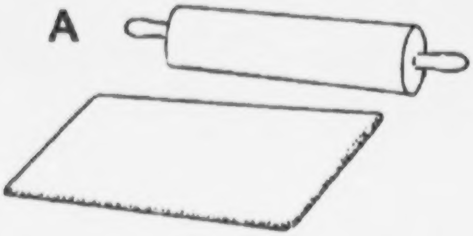


E

Cinnamon Rolls

A. Roll dough into a square. Sprinkle with cinnamon and sugar.
B. Roll tightly. Pinch seam to seal. Wash with mixture of water and beaten egg.
C. Slice the rolled dough into slices about 1/2 inch thick.
D. Place in pan. Brush with melted butter and margarine and let rise.
E. Bake. Apply a powdered sugar glaze after baking, if desired.

A



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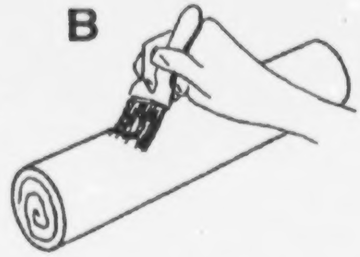

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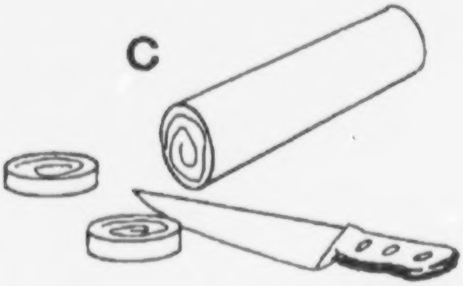

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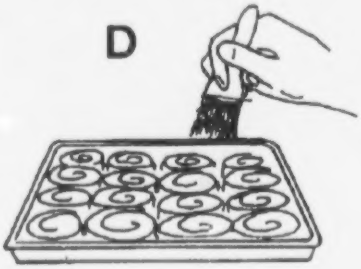

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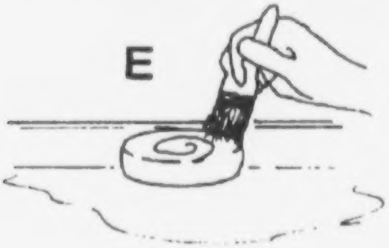
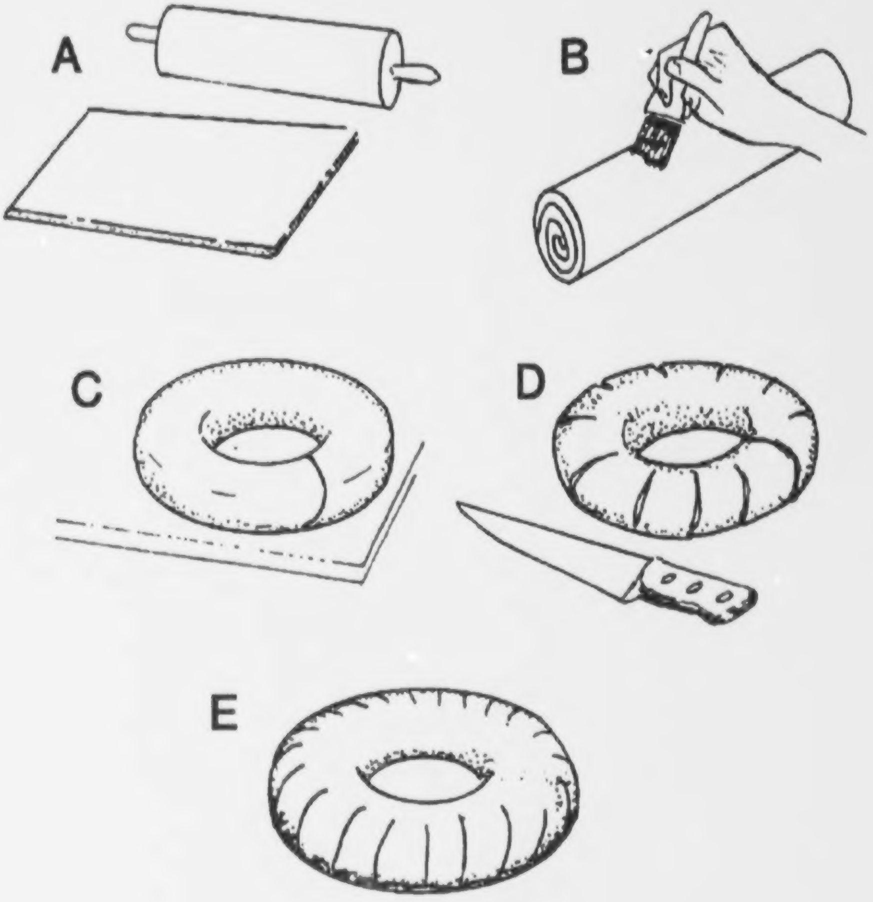


Coffee Rings

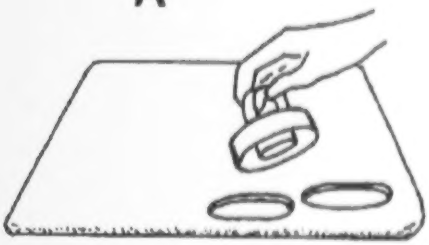
A. Roll dough into a rectangle. Sprinkle with cinnamon and sugar.
B. Roll from the long side into a tight roll. Wash with mix of water and egg.
C. Transfer roll of dough to the greased baking pan and form into a circle, connecting ends together.
D. Cut slashes at 1–1 1/2 inches apart and to within 1 inch of center. Each slashed strip may be twisted slightly on the outside edge, if desired.
E. Let rise. Apply a powdered sugar glaze, if desired, after baking.



Doughnuts

A. Roll dough into a rectangle or square. Use a doughnut cutter to cut doughnuts.
B. Proof doughnuts for 15-20 minutes.
C. Cook doughnuts a few at a time in hot, deep fat, turning once.
D. Sprinkle with sugar or apply a powdered sugar glaze, if desired.

A



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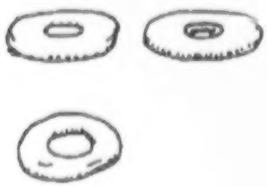

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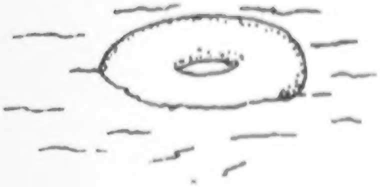

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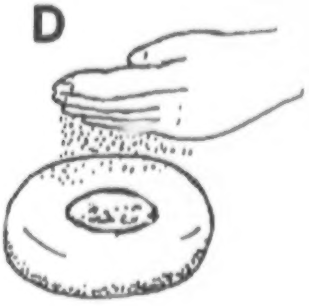
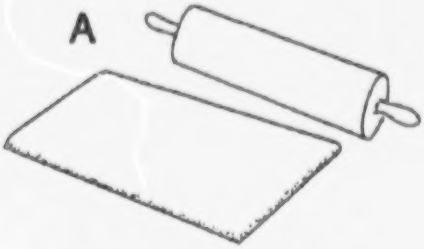


Danish Pastry

A. Roll dough into a rectangle. Sprinkle lightly with flour.
B. Fold in half.
C. Slice into strips about 1 inch wide.
D. Beginning at the fold in the strip, twist the two pieces around each other.
E. Arrange the twisted dough on a greased baking sheet in the shape of a snail.
F. Place jelly or jam in the center of each roll. Proof and bake.
G. After baking, apply powdered sugar glaze in a crisscross design.

A



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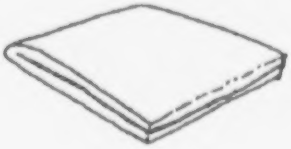

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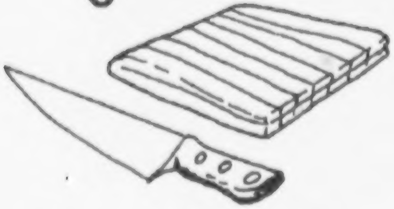

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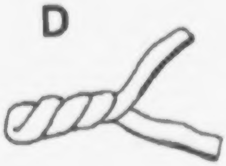

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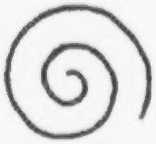

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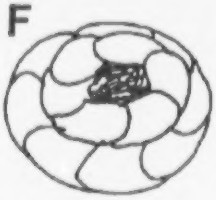

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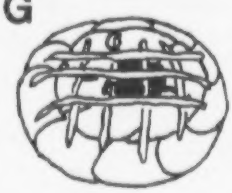


Comparison Record

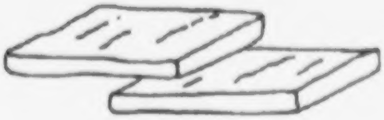
	Recipe Foods	Convenience Foods
Appearance		
Taste/Texture		
Preparation Time		
Cooking Time		
Price Per Serving		

Tips for Dessert Storage and Service

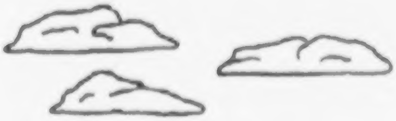
	Storage	Service
Fresh and Canned Fruits	Fresh: Air tight and cool place or whole fresh fruits at room temperature. Canned: Room temperature.	Hot or Cold
Gelatins	Covered in refrigerator to prevent absorption of odors and flavors. Air tight containers prevent drying.	Cold
Puddings and Custards	Cool in regrigerator. Seal air tight.	Cold
Ice Cream, Parfaits, and Mousses	Hard frozen at 0° F. or below. Serving temperature at 8°-15° F. Store tightly covered.	Cold (almost frozen)
Cookies	Soft; Layered in thightly covered containers. Crisp: Covered containers	Hot, warm, or room temeprature

Cookie Characteristics

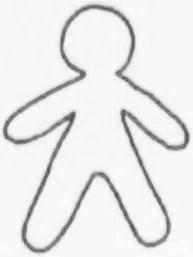
Bar cookies should...
- be even in size and shape.
- have a thin crust.
- be moist in texture.



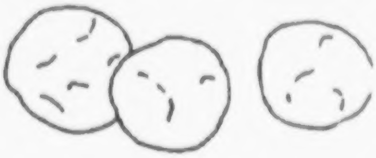
Drop cookies should...
- be mounded in shape.
- be uniform in size.
- be lightly browned.



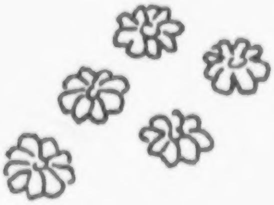
Rolled cookies should...
- be the shape of the cutter.
- be lightly browned.
- have a texture characteristic for the type cookie.



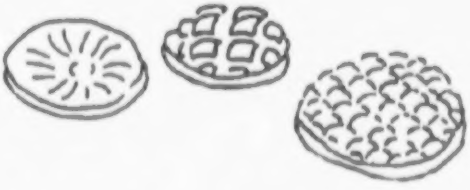
Refrigerator cookies should...
- be thin and even in shape.
- have a crisp texture.
- be lightly browned.



Pressed cookies should...
- be shaped in a definite pattern.
- have light brown edges.
- have a crisp texture.



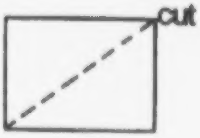
Molded cookies should...
- be uniform in size.
- be well shaped.
- be lightly browned.
- have a crisp texture.



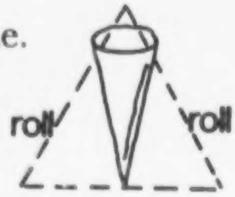
Parchment Decorating Bags

✂Cutting and folding a parchment paper bag:

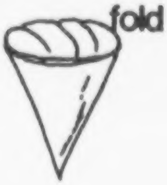
1. Cut a square of parchment paper in half diagonally to form a triangle.



2. Roll the triangle to form a cone.

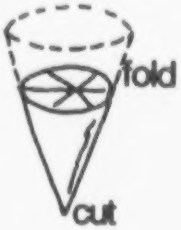


3. Fold the edge of paper into the bag.

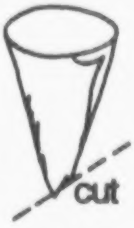


✂Cutting the Decorative Tip:

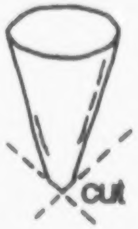
1. Writing Tip: Cut a small hole about 1/8" to 1/4" straight across at the bottom of bag with scissors.



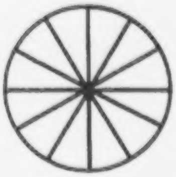
2. Rosebud Tip: Cut one side of point only. Cut 1/2" from center point angled to the outside of the bag.



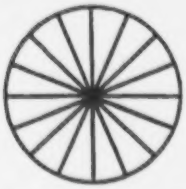
3. Leaf Tip: Cut both sides of the bag's point equally. Cut 1/4" from the center point to each outside edge.



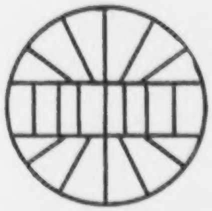
Cutting Cakes



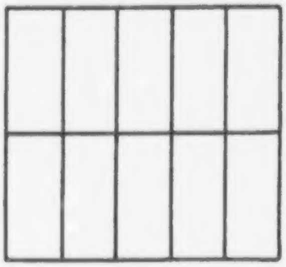
8" Round Layer Cake
(12 servings)



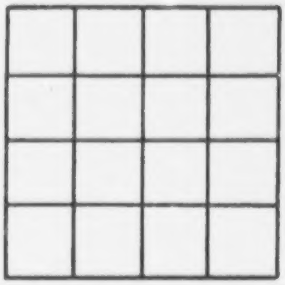
9" Round Layer Cake
(16 servings)



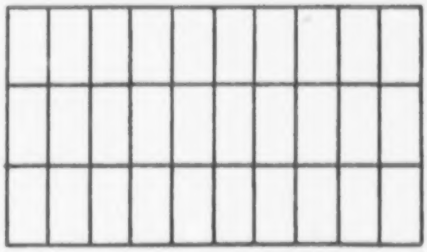
10" Round Layer Cake
(20 servings)



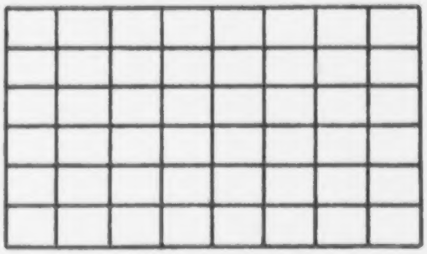
8" x 8" Square Cake
(10 servings)



9" x 9" Square Cake
(16 servings)



9" x 13" Rectangle Cake
(30 servings)



18" x 25" Rectangle Cake
(48 servings)

TA 125

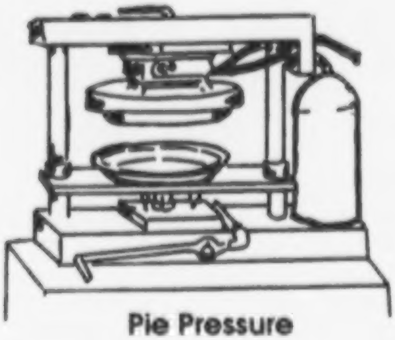
Commercial Pie Crusts

Type Crust	Flour	Shortening	Water	Salt
70% Formula*				
Long Flaky	10 lb.	7 lb.	3 1/2 lb.	5 1/2 oz.
Medium Flaky	10 lb.	7 lb.	3 lb.	5 1/2 oz.
Mealy	10 lb.	7 lb.	2 3/4 lb.	5 1/2 oz.
60% Formula*				
Mealy	10 lb.	6 lb.	4 lb.	5 1/4 oz.
50% Formula*				
Very Mealy	10 lb.	5 lb.	4 lb.	5 1/4 oz.

* These percentage formulas indicate the percentage of shortening to flour in each case.

Please note that different types of flour require different amounts of shortening to produce the same or similar results.

Quantity Pie Production



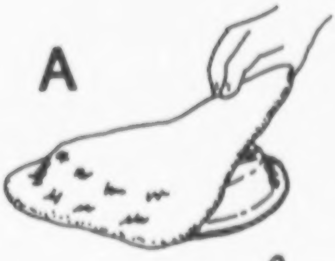
Pie Pressure

Pie Presser Operation:

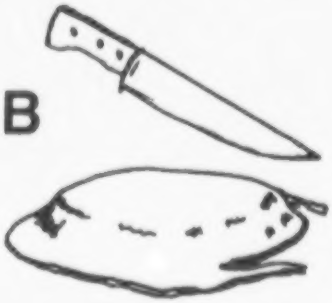
1. Place scaled dough ball in center of pie pan.
2. Place pie pan on the platform.
3. Check to see if mold is same size as pie pan.
4. Raise platform, pressing dough against the mold. Dough will not stick because mold is slightly warm.
5. Lower platform and remove pie pan.
6. Check to be sure there are no air pockets under the crust.

Double-Panning: (A) Place rolled dough over back of pie pan
(B) Trim edges
(C) Dock dough with a fork
(D) Cover crust with another pie pan
(E) Bake in oven

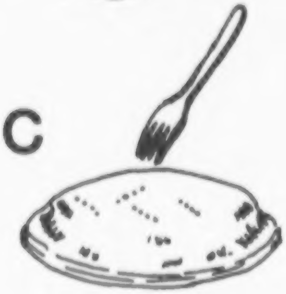
A



B



C



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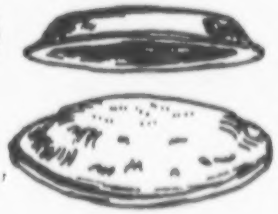
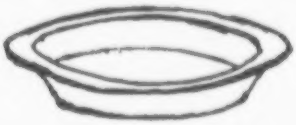


E



TA 127

Self-Evaluation Check List for Food Service and Employees

The check list below will aid you in determining what kind of employee you are. It will be useful for self-evaluation only if you answer the questions honestly. Compare the check list, then use it as a basis for self-improvement.

☞ **DIRECTIONS:** Read each question carefully. Place a check (✓) in the box which describes your behavior as a food service employee.

CHARACTERISTICS	Most of the time	Sometimes	Seldom
Appearance:			
1. Do you start the day with a smile?	☐	☐	☐
2. Do you check your appearance before going to work?	☐	☐	☐
3. Do you check your clothing for rips, missing buttons, or sagging hems?	☐	☐	☐
4. Is your skirt/pant length appropriate?	☐	☐	☐
5. Does your clothing fit without being too tight or too loose?	☐	☐	☐
6. Is your hair clean and neatly arranged?	☐	☐	☐
7. Do you wear a hair net or cap, if required?	☐	☐	☐
8. Females, is your makeup used in moderation?	☐	☐	☐
9. Males, is your face clean shaven? If you wear a mustache, is it neat?	☐	☐	☐
10. Do you refrain from wearing jewelry, except for a watch and wedding rings?	☐	☐	☐
11. Are your teeth clean and your breath fresh?	☐	☐	☐

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CHARACTERISTICS	Most of the time	Sometimes	Seldom
12. Are your hands clean and nails groomed?	☐	☐	☐
13. Do you use an effective deodorant?	☐	☐	☐
14. Do you refrain from using excessive cologne or perfume?	☐	☐	☐
15. Are your shoes clean, in good repair, and comfortable?	☐	☐	☐
Health:			
1. Are you in good physical health?	☐	☐	☐
2. Do you eat a balanced diet and get plenty of rest?	☐	☐	☐
3. Do you get adequate exercise?	☐	☐	☐
4. Do you avoid smoking?	☐	☐	☐
5. Do you avoid the use of alcohol and drugs?	☐	☐	☐
Communication:			
1. Do you speak in a pleasant manner and moderate tone?	☐	☐	☐
2. Do you have a reasonable command of the English language?	☐	☐	☐
3. Do you use good telephone manners?	☐	☐	☐
4. Do you take accurate messages?	☐	☐	☐
5. Do you listen carefully?	☐	☐	☐
Cooperation:			
1. Do you observe and obey rules and policies?	☐	☐	☐

TA 127

CHARACTERISTICS	Most of the time	Sometimes	Seldom
2. Are you willing to do whatever job is assigned?	☐	☐	☐
3. Are you willing to do jobs or routine tasks not originally assigned to you?	☐	☐	☐
4. Can you make adjustments to changes and unexpected situations?	☐	☐	☐
5. Do you cooperate with your co-workers?	☐	☐	☐
6. Have you gained the friendship and respect of those with whom you work?	☐	☐	☐
7. Do you respect the authority of those for whom you work?	☐	☐	☐
8. Are you willing to work with someone in spite of personality conflict?	☐	☐	☐
Courtesy:			
1. Are you pleasant while working?	☐	☐	☐
2. Are you courteous, polite, and patient with fellow employees and your supervisor?	☐	☐	☐
3. Are you courteous, polite, and patient to customers, students, or patients?	☐	☐	☐
4. Do you respect the desires, interests, and opinions of others?	☐	☐	☐
Dependability:			
1. Do you get to work on time?	☐	☐	☐
2. Do you miss work only when you are ill?	☐	☐	☐
3. Can you work without constant supervision?	☐	☐	☐
4. Do you stay at your assigned work station?	☐	☐	☐

CHARACTERISTICS	Most of the time	Sometimes	Seldom
5. Do you pay attention to instructions and carry them out accurately?	☐	☐	☐
6. Can your supervisor depend on you for high quality work?	☐	☐	☐
7. Are you able to work under pressure without becoming nervous, irritable, or inefficient?	☐	☐	☐
8. Can your employer depend on your loyalty and honesty?	☐	☐	☐
Self-Control:			
1. Are you loyal to your employer and place of employment?	☐	☐	☐
2. Can you accept criticism and remain friendly?	☐	☐	☐
3. Do you control your temper?	☐	☐	☐
4. Do you avoid talking back to your supervisor?	☐	☐	☐
Work Habits:			
1. Does your work meet the standards of the food service operation where you work?	☐	☐	☐
2. Do you work in a neat and orderly manner?	☐	☐	☐
3. Can you work without becoming bored or distracted?	☐	☐	☐
4. Are you careful and not wasteful in the use of food, supplies, and materials?	☐	☐	☐
5. Do you handle and use equipment carefully?	☐	☐	☐
6. Do you willingly accept and practice new or more efficient techniques?	☐	☐	☐

TA 127

CHARACTERISTICS	Most of the time	Sometimes	Seldom
7. Are you prompt and efficient?	☐	☐	☐
8. Do you avoid wasting time?	☐	☐	☐
Initiative:			
1. Do you feel responsible for completing tasks assigned to you?	☐	☐	☐
2. Do you ask questions when you are not sure what is expected of you?	☐	☐	☐
3. Are you able to see what needs to be done without being told?	☐	☐	☐
4. Do you show leadership when you are in charge without being "bossy"?	☐	☐	☐
5. Do you use criticism as a basis for self-improvement?	☐	☐	☐

Problem Situation Skits

Elderly Person

Mr. Jones (who is elderly) has been seated near the kitchen and complains to the waiter of noise and a draft. Mr. Jones is on a restricted diet and cannot eat the two eggs offered on the breakfast menu. He complains of having to pay for an egg he cannot eat.

1. Where should an elderly person have been seated?
2. What might be done to make up for the portion of the meal an elderly person or a person on a restricted diet cannot have?

Blind Guest

Mr. Wiggins (who is blind) arrives at your restaurant alone for dinner. You are the waiter. Offer Mr. Wiggins your arm and take him to his table being sure the path is wide enough for two. Pull out his chair as you would for any other guest. Quietly remove the tall flower vase and any other clutter from the table or from reach. Offer Mr. Wiggins a menu. He may be able to see it. If not, quietly read it aloud without making any suggestions. Write down Mr. Wiggins' special request that the meat be cut for him.

1. How should blind guests be treated?
2. Why should you talk in a normal voice to a blind person?

Ill or Injured Guest

Ms. Judy Stokes, a regular customer, missed a step as she was leaving the dining room. She turned her ankle and knocked herself unconscious on a chair as she fell. You are the waitress or waiter closest to Judy when she falls. Ask another waitress or waiter to get the supervisor. Stay with Judy. Do not attempt to move her. As she comes to, assure her that help will arrive shortly. Ask someone to find something warm to cover Judy if she is cold.

1. Why should the waitress or waiter stay with a person who is ill or has an accident?
2. Why should the waitress or waiter never try to move a person who is injured?

Noisy Customers

It is late one evening. A large party has come for dinner. They talk loudly, laugh, and seem to be disrupting the whole dining room. Guests at nearby tables seem annoyed. Call the situation to the attention of the headwaiter or manager.

1. Why should the waiter or waitress not try to quiet noisy customers?

Early Customers

Two businessmen arrive before the dining room is open for the evening. Ask them if they would care to wait in the lounge until the kitchen is ready. They indicate this is not acceptable, so seat them in the dining room and offer a newspaper while they wait. The men know they are early and politely wait until the staff is ready to serve them.

1. What problems might arise from guests who arrive early?

Late Customers

A couple on their way home from a party have decided to stop by the restaurant where you are hostess. Explain that the kitchen is closed and ask if they are willing to make do with a selection of cold hors d'oeuvres.

1. Why may late customers present a problem?
2. Why is it important to explain that the kitchen is closed or that the selection is limited before seating late guests?

The Angry Customer

A woman dining alone calls the waiter to her table after the food has been served. She ordered her steak well done, and it was served medium rare. She is understandably displeased. The dining room has been extremely busy and you think you may have given her the wrong order. Express regret that the steak is undercooked and offer to return it to the kitchen to be cooked again. The woman agrees.

When you return the steak, the woman again finds it underdone and calls you to her table. This time she is really mad. She will not agree to allow you to return the steak again. Call the headwaiter (or supervisor) to talk to the woman.

1. Why should the waiter or waitress be prompt in attending to complaints?
2. Why should the waiter or waitress *never* "reason" with an angry customer?

Children

The Sharps and their small son, Stephen, are having dinner in the restaurant where you are the waitress or waiter. Discreetly move the ash tray out of little Stephen's reach. Take the order from Stephen's parents. When Stephen says he wants a hamburger, look to his parents for approval.

1. Why should the child's order be taken from the parent?
2. If you cannot discreetly move items which might be knocked over, what should you do?
3. If the restaurant does not have children's portions, what should the waiter or waitress do?
4. If a child annoys other guests, who should ask the parents to control the child?

Answers

Elderly Person——————

1. Away from noise and drafts, but not in an isolated part of the dining room.
2. Offer larger portions of other items, if approved by the management.

Blind Guest——————

1. They have gotten to your restaurant without undue assistance, and should be treated with the dignity as given to any other guest.
2. Blind people often have a keen sense of hearing.

Ill or Injured Guest——————

1. The person might need something or be further injured if left alone.
2. He or she might cause further injury.

Noisy Customers——————

1. Customers called down by a waiter seldom accept comments gracefully. Someone in a position of authority will have more success.

Early Customers——————

1. They know they are early and are usually willing to wait.

Late Customers——————

1. It may mean no dinner for them at all.
2. The establishment is not on the defensive if guests know the selection is limited before they are seated. They may agree to make do with what is available or may choose to leave.

The Angry Customer——————

1. Often the situation can be corrected with no hard feelings if attended to promptly.
2. Their job is to serve the customer. If the waiter or waitress cannot please the customer, whether the customer is right or wrong, the headwaiter or supervisor should be called.

Children——————

1. The parent is the host.
2. Leave them. It is easier to replace an ash tray than a customer.
3. He or she should not suggest them but if they are requested, check with the supervisor.
4. The headwaiter.

The HAPPY Customer

⇨ **Directions:** The following situations can be used in several ways. Choose the one you feel is most appropriate for your students.

1. Provide a copy of the situations for each student. Go over the situations one at a time with students.
2. Read only the description of each situation and let students provide the answers. Use the suggested solutions to form questions to help students think through the problem if they need help.
3. Read the description of each situation and the choice presented. Let students choose the best answer. For some students you may want to reduce the number of choices to 2 or 3.
4. Tape record the situations and choices. Give the direction to turn off the recorder and decide on a solution at the end of each situation then turn the recorder back on. Give the correct solution and information about why other solutions are wrong. Give the next situation. Repeat for all ten situations.

1. Two men are having lunch at the restaurant where you work. Halfway through the meal, one of the men waves at you. You should
   (a) smile and wave back.
   (b) think he just saw someone he knew.
   (c) go ask him if he needs anything else.
   (d) ignore him since you do not know him well enough to wave back.

2. A woman has just started eating her dinner at the restaurant where you work. Her iced tea glass is full and she seems to be enjoying her meal. You should
   (a) sit down and have a glass of tea with her since she is alone.
   (b) do nothing for her right now since she does not seem to need anything.
   (c) ask if she is going to want dessert after her meal.
   (d) thoroughly clean the window right next to her table.

3. It is a busy night at the restaurant where you work. A man and woman come into eat and sit at a corner booth that you normally do not pass very often. You should
   (a) let them get your attention anyway since they can sense you are too busy to pass their booth very often.
   (b) ask them every two minutes if they need anything else.
   (c) ignore them totally since you are really too busy to service an out-of-the-way booth.
   (d) check with them several times and pass their booth often enough to see if it looks like they need anything.

4. Two of your friends come in to eat at the restaurant where you work. You should
   (a) sit down and talk to them for as long as it takes for them to eat.
   (b) make sure they have everything they need just like all your other customers.
   (c) let them get whatever they need from the kitchen since they are your friends.
   (d) make sure they receive extra free portions of food and free desserts.

5. One of your customers seems to need something every time you turn around. First it was catsup, then it was steak sauce. After a few minutes, he needed more tea and another lemon wedge. Should you
   (a) get whatever he asks for quickly and cheerfully?
   (b) tell him you will get him anything he wants if he will only tell you everything at once?
   (c) ignore him if he tries to get your attention again?
   (d) refuse to get him anything else because you are tired?

6. Your customers have finished their meal. They might want a dessert. You should
   (a) take them the check because they had a large meal and probably do not need dessert.
   (b) say, "You must have a piece of our apple pie."
   (c) ask if they would like to have a dessert.
   (d) go ahead and take them a dessert you think they will like.

7. Your customers have finished with their meal. You should
   (a) wait until they ask for the check.
   (b) take them the check but say nothing.
   (c) give the check to the cashier to give to your customers because you want to go home.
   (d) give them the check if they do not need anything else and say, "Thank you."

8. Three women are having lunch at the restaurant where you work. One woman has drank all of her water, but the other two still have almost full glasses. You should
   (a) ask if you may refill the empty glass and as long as you are there ask the other women if they would like more water, too.
   (b) ignore the empty glass and let the woman call you if she needs more water.
   (c) wait until all of the glasses are empty so you can make one trip.
   (d) wait until at least two of the glasses are empty so you can save your time and energy.

9. Two people come into the restaurant. The host seats them and gives each one a menu. You should
   (a) rush over as quickly as possible to take their orders.
   (b) give the customers a chance to read the menu.
   (c) not go to the table until the customers call you.
   (d) wait for the host to take their orders.

10. At the end of the meal, two women light up cigarettes. You notice there is no ashtray at their table. You should
    - (a) let them drop the ashes on their plates, in their cups, or on the floor.
    - (b) wait until they ask for an ashtray because you are busy.
    - (c) let the customers worry about the ashes since you do not like people to smoke anyway.
    - (d) take an ashtray to the customers and apologize because there was not one on the table already.

The HAPPY Customer

Answer Sheet

1. **The correct answer is (c).** Usually waving and similar hand movements are signs that the customer needs something else. It is possible that he might have seen someone he knew, but just to be safe, go and ask him if he needs anything else.

2. **The correct answer is (b).** She has just started her meal and seems to have everything she needs. It is too early to ask her if she will have a dessert since she just started her meal. You are paid to work as a waiter or waitress, so you should *never* sit down to visit with customers. Heavy cleaning duties such as cleaning windows should be done during the hours that customers are not in the restaurant. Cleaning the window right next to the customer would put you in the customer's way and the smell of cleaning products would not be appetizing for the customer.

3. **The correct answer is (d).** You should never ignore your customers or make them have to get your attention every time they need something. However, asking them if they need something every two minutes is too often and might make them feel uncomfortable.

4. **The correct answer is (b).** You should treat your friends just like any other customer. You are paid to be a waiter or a waitress, so you should not sit down to visit. No one, not even your friends, should have to go to the kitchen to get what they need. You should *never* give anyone free food.

5. **The correct answer is (a).** You should get whatever your customers need quickly and cheerfully. You should never threaten, ignore, or refuse the customer.

6. **The correct answer is (c).** You should always ask your customers if they would like to have a dessert. You should not just take them a dessert you think they would like. Saying, "You must have a piece of apple pie," seems pushy.

7. **The correct answer is (d).** You should ask them if they will need anything else and if they do not need anything else give the check and thank them. The customer should not have to ask for the check. You should always give them the check yourself and thank them.

8. **The correct answer is (a).** You should refill the empty glass if the customer wants you to and ask the others if they would like refills, too.

9. **The correct answer is (b).** You should give the customers a chance to read the menu and make their decisions. You should, however, be aware and go to the table before the customer has to call you. You should be the one to take the order, so you would not wait for the host or hostess to take the order.

10. **The correct answer is (d).** You should take an ashtray to the customers and apologize because there was not one on the table already. You should not make it necessary for them to drop their ashes on the floor or on their plates by not providing an ashtray. Your dislike for smoking should not cause you to make your customers unhappy.

TA 130

SAMPLE GUEST CHECK

Date	Waitperson	Station	No. in Party	10406A

Sub Total		
+ Tax		
Total		

TA 131

Sidework and Bussing Duties

- ☐ *Clear and clean tabletops.*
- ☐ *Carry dirty dishes to kitchen.*
- ☐ *Dust chairs after each guest leaves.*
- ☐ *Clean ashtrays; fold napkins.*
- ☐ *Place chairs and tables in orderly manner.*
- ☐ *Change table linens; set tables with clean items.*
- ☐ *Clean and fill condiment containers.*
- ☐ *Clean up spills and breakage to prevent accidents.*

- ☐ *Stock service station.*
- ☐ *Sort, count, and store utensils at proper storage place.*
- ☐ *Serve water, coffee or tea, and rolls and butter.*
- ☐ *Make coffee.*
- ☐ *Fill water pitcher.*
- ☐ *Stock roll and ice bins.*
- ☐ *Clean serving trays and cart.*
- ☐ *Clean floors.*

Supplies for Managing Service Stands

1. Supplies for cleaning and setting tables
    - ✧ dishes
    - ✧ flatware
    - ✧ ashtrays
    - ✧ flower vases
    - ✧ linens
    - ✧ cleaning cloths
    - ✧ towels

3. Single-service items
    - ✧ paper place mats
    - ✧ paper napkins
    - ✧ doilies
    - ✧ coasters
    - ✧ straws
    - ✧ matches
    - ✧ toothpicks
    - ✧ plastic eating utensils

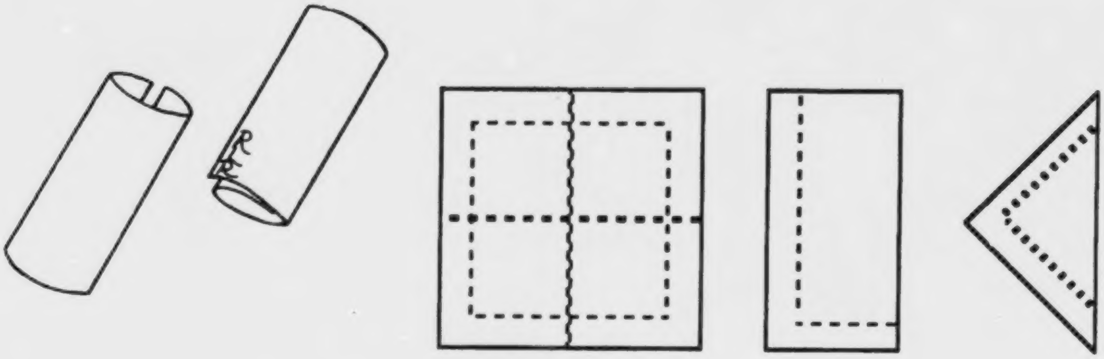
2. Items for serving food
    - ✧ bread baskets
    - ✧ tongs
    - ✧ serving utensils
    - ✧ containers

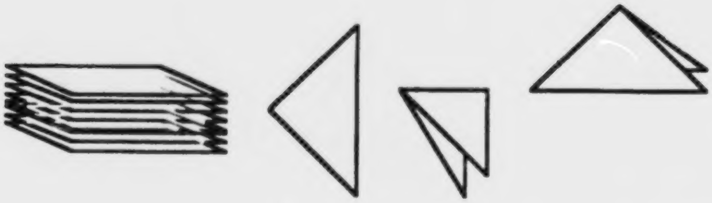
TA 133

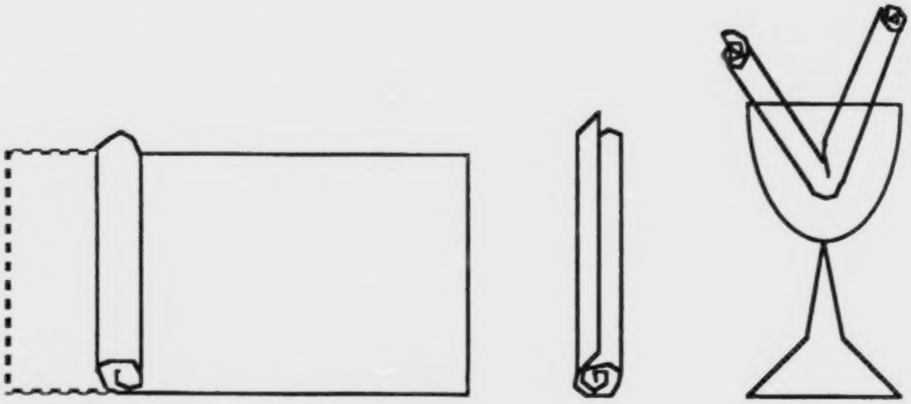
Basic Rules for Table Service

1. SERVE ALL FOOD FROM LEFT, UNLESS INCONVENIENT FOR GUEST.
2. SERVE ALL BEVERAGES FROM RIGHT. FILL WATER GLASSES 2/3 TO 3/4 FULL.
3. CLEAR FROM RIGHT, UNLESS INSTRUCTED TO CLEAR FROM LEFT.
4. DO NOT STACK PLATES OR SCRAPE PLATES IN FRONT OF GUEST.
5. NEVER LEAVE A GUEST'S PLACE BARE. ONE COURSE SHOULD FOLLOW ANOTHER.
6. WHEN REPLACING ONE COURSE WITH ANOTHER, REMOVE FROM RIGHT WITH RIGHT HAND, SERVE FROM LEFT WITH LEFT HAND.
7. SERVE HOT FOODS FIRST, THEN COLD FOODS.
8. SERVE EVERYONE IN THE PARTY THE SAME COURSE AT THE SAME TIME.
9. CRUMBS, BREAD, AND SIDE DISHES SHOULD ALWAYS BE REMOVED BEFORE DESSERT IS BROUGHT.
10. FILL WATER AND BEVERAGE DISHES, REPLACE CUTLERY, CLEAR AWAY SIDE DISHES, BRING BREAD, EMPTY ASHTRAYS BEFORE BEING ASKED.

Simple Napkin Folds

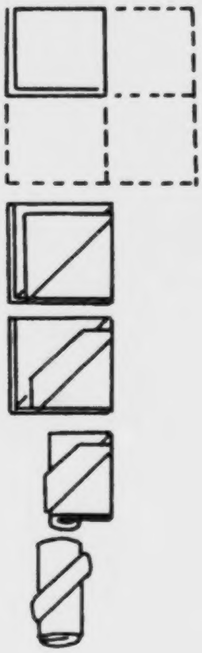




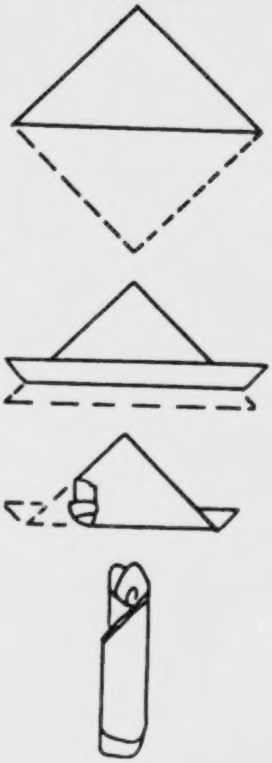


Elaborate Napkin Folds

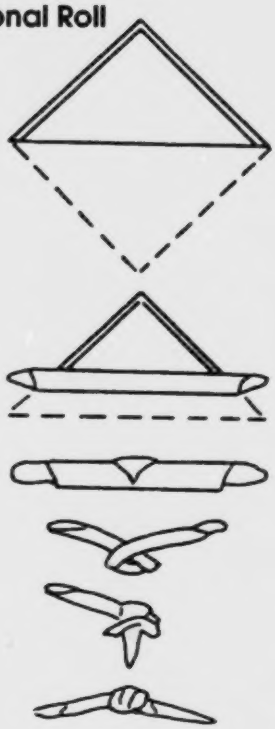
Flat Fold



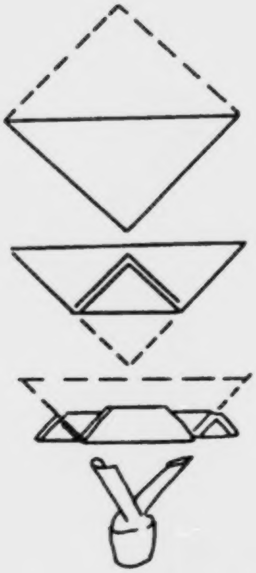
Candle



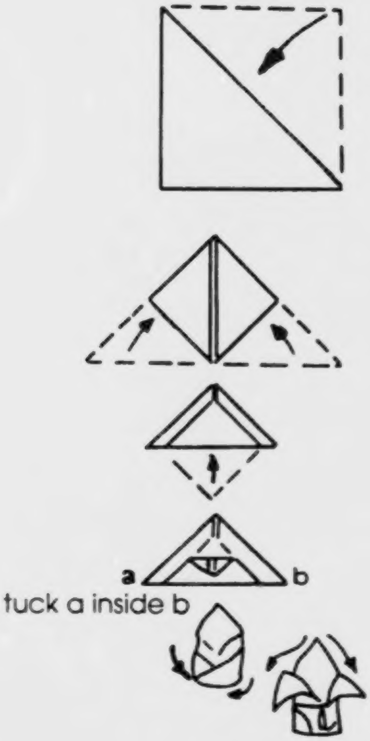
Diagonal Roll



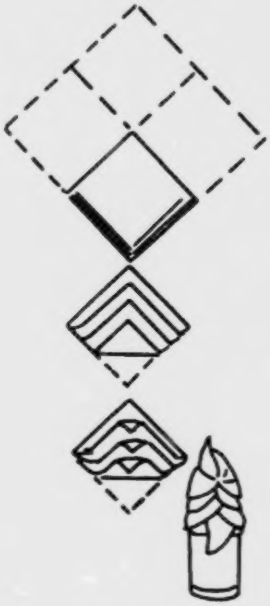
Fish



Bishop's Hat


a
b
tuck a inside b

Four Flaps



Steps for Removing Dishes from Occupied Tables

1. When ready to clear a course (all guests have finished) stand at the right of the first diner.

2. Extend the right hand to the diner's right and grip the plate. Leave the flatware on it. Place the index and middle fingers under the plate and the thumb tightly clasped on the top of the plate. Withdraw the plate around the guest.

3. Transfer the plate to the left hand, using the same grip.

4. Place forks next to each other on the plate, turned outward.

5. Place the knife under the bridge (curved part) of the fork, with the sharp edge turned outward.

6. Still holding the first plate, remove the second plate from the second diner in the same manner.

7. Place the second plate on the lower left forearm. Support the plate at three points: lower forearm (not wrist), the thick part of the thumb of the left hand, and the upturned little and ring fingers of the left hand.

8. Remove the knife and fork from the second plate to the first. Place them next to the original flatware.

9. Stack the first plate on top of the second plate and hold in left hand. Continue around the table, but place plates on a tray or cart when they begin to get too heavy.

Clearing Dishes from a Vacant Table

1. Use trays or carts to save steps and decrease amount of time spent on the task.

2. Pick up glassware by the base, utensils by the handle, and plates by the rim.

3. Put heavy dishes on tray first and toward the center.

4. Separate flatware and pile it on one side of tray with all handles turned in one direction.

5. Place cups, bowls, cream pitchers, and teapots on top of plates, nestled securely.

6. Place water glasses in one section. Cocktail glasses are placed on a separate tray.

7. Do not overload tray and be sure weight is evenly distributed.

TA 136

Packing Lists

Sheet No. 1

Date __________________

Time Leave _______________

Service for ___________________

Truck No. _________________

Date of Function ______________

Driver ___________________

Item	Out	In	Missing	Used	Total
Chafing Dish, No. 1					
Chafing Dish, No. 2					
Chafing Dish, No. 3					
Coffee Urn, Large					
Coffee Urn, Medium					
Coffee Tray					
Electric Fountain					
Chairs					
Tables, Banquet					
Tables, Card					
Tables, Service					
Blades					
Breakage					

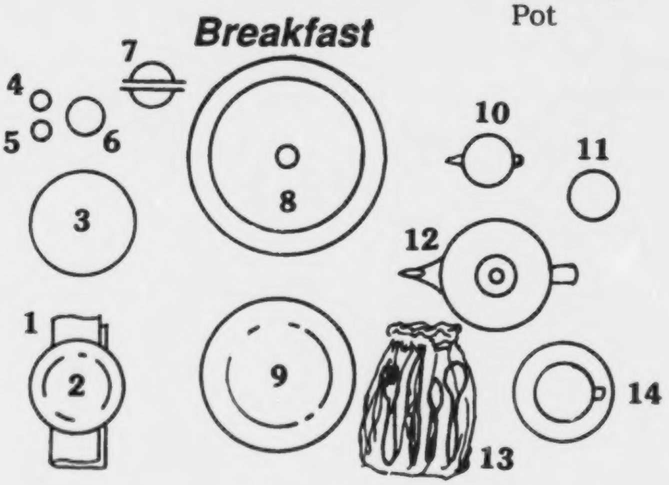
In Charge ______________ Gas ______________ Mileage __________

Remarks: Supplies ____________ Extras ___________

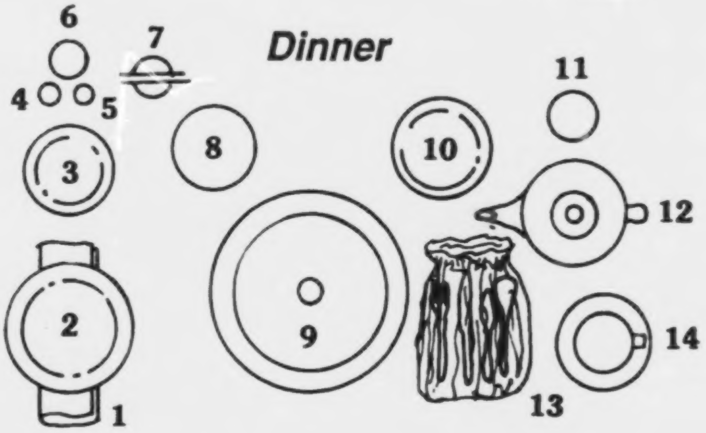
Place Settings for Tray Service

The diagrams below illustrate typical breakfast and dinner place setting for tray service.

1. Napkin
2. Bread and Butter Plate
3. Cereal Bowl
4. Salt
5. Pepper
6. Sugar
7. Tray Card Holder
8. Main Plate with cover
9. Fruit Plate
10. Creamer
11. Milk
12. Beverage Pot
13. Sacked Silverware
14. Cup and Saucer


Breakfast
7
4
5
6
3
8
10
11
12
1
2
9
13
14

1. Napkin
2. Salad Plate
3. Bread and Butter Plate
4. Salt
5. Pepper
6. Sugar
7. Tray Card Holder
8. Vegetable Dish
9. Main Plate with Cover
10. Dessert Plate
11. Milk
12. Beverage Pot
13. Sacked Silverware
14. Cup and Saucer


6
7
Dinner
4
5
3
8
10
11
12
2
9
14
1
13

Setting Up The Tray

In setting up the trays, one of several methods may be used, depending upon the organization of the dietary or food service establishment in which you are working. The following items are placed on the tray regardless of the tray assembly method used:

- *Tray cover (liner)*
- *Tray card*
- *Napkin*
- *Salt, pepper, and sugar, if used (these items may be packaged)*
- *Cup and saucer or beverage glass*
- *Bread and butter plate (if used)*
- *Flatware*
- *Cold foods*
- *Hot foods*

The tray or menu card in a hospital or nursing home should give the following information:

- *Patient's name and room number*
- *Type of diet for special foods*
- *Food items*

Standards for Tray Service

Certain standards should be observed for setting up and serving trays. Basic principles of tray service ensure that the food served is attractive and palatable and that it meets the expectations of patients or customers.

Principles of Tray Service

As in all other food service operations, care should be taken to ensure that when food is received it is . . .

Attractive.

- Tray cover is spotless and suitable for the size of the tray.
- Size of the tray and dishes are proportionate to the size of the meal being served (example: a glass of milk by itself on a large tray looks lost).
- Flatware, tableware, and glassware are spotlessly clean. Tableware and glassware must be free of chips or cracks.
- Colors of all accessories on the tray harmonize and create a pleasing effect.
- Food portions are arranged neatly and attractively on plates and in dishes and bowls.

Palatable.

- Trays are served promptly with hot foods hot and cold foods cold.
- If delays are necessary, precautions must be taken to ensure that food is of high quality when it is delivered to patients or customers.

Meets expectations of patients or customers.

- Food is arranged on plates in a consistent order. This enables those who check trays to see quickly whether all items called for on the diet are provided and no extra items are included.

TA 140a

Check These Checks

Directions: Circle the mistakes on each of the following checks.

Jane Doe
DL 08239832
501 2nd St. 652-6612
Anywhere, Texas 79822

556

1 - 5 19 93

Pay to the order of *Country Kitchen Restaurant* $ $14\frac{58}{00}$

Fourteen dollars and $\frac{no}{100}$ Dollars

DOLLAR BANK
10th CANTON
ANYWHERE, TX 79823

For *food*

Jane Doe

1 : 111305050: 22 788 2 8" 0858

Jane Doe
DL 08239832
501 2nd St. 652-6612
Anywhere, Texas 79822

557

Jan 9 19 94

Pay to the order of *Country Kitchen Restaurant* $ $10\frac{98}{00}$

Ten Dollars and 98/100 Dollars

DOLLAR BANK
10th CANTON
ANYWHERE, TX 79823

For *Lunch*

John Doe

1 : 111305050: 22 788 2 8" 0858

Jane Doe
DL 08239832
501 2nd St. 652-6612
Anywhere, Texas 79822

558

Feb 9 19 94

Pay to the order of *Restaurant* $ 7 00/

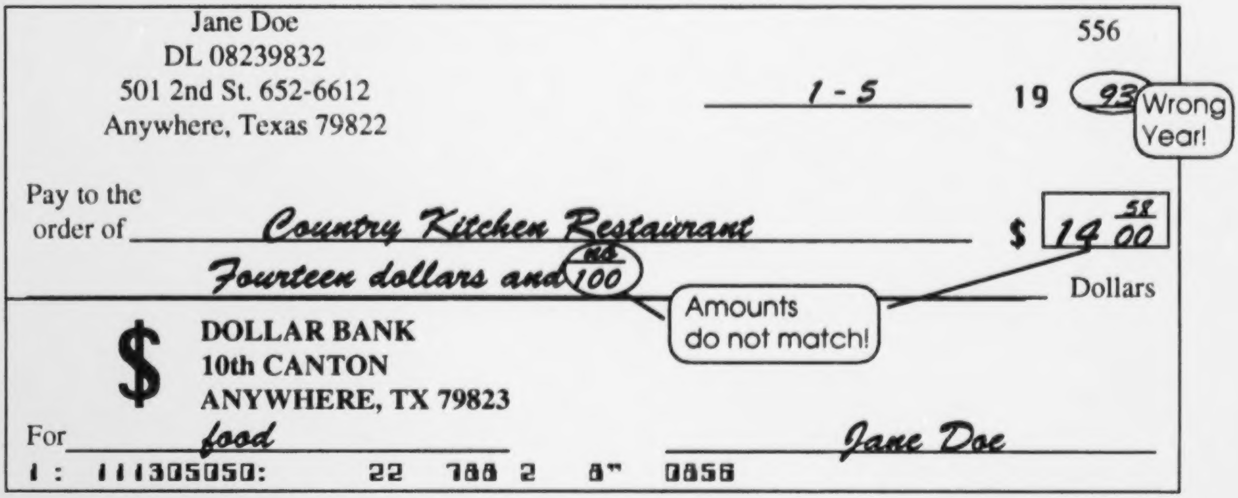
7 dollars and no cents Dollars

DOLLAR BANK
10th CANTON
ANYWHERE, TX 79823

For

Jane Doe

1 : 111305050: 22 788 2 8" 0858



Jane Doe
DL 08239832
501 2nd St. 652-6612
Anywhere, Texas 79822

556

1 - 5 19 *93*

Wrong Year!

Pay to the order of *Country Kitchen Restaurant* $ *14 $\frac{58}{00}$*

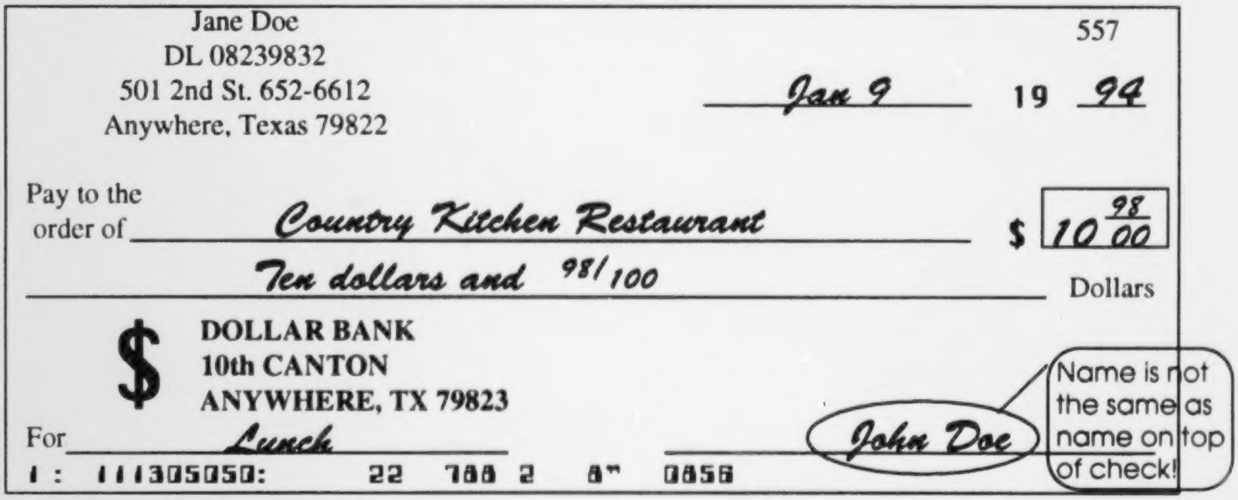
Fourteen dollars and $\frac{no}{100}$ Dollars

Amounts do not match!

DOLLAR BANK
10th CANTON
ANYWHERE, TX 79823

For *food* *Jane Doe*

1 : 111305050: 22 788 2 8" 0856



Jane Doe
DL 08239832
501 2nd St. 652-6612
Anywhere, Texas 79822

557

Jan 9 19 *94*

Pay to the order of *Country Kitchen Restaurant* $ *10 $\frac{98}{00}$*

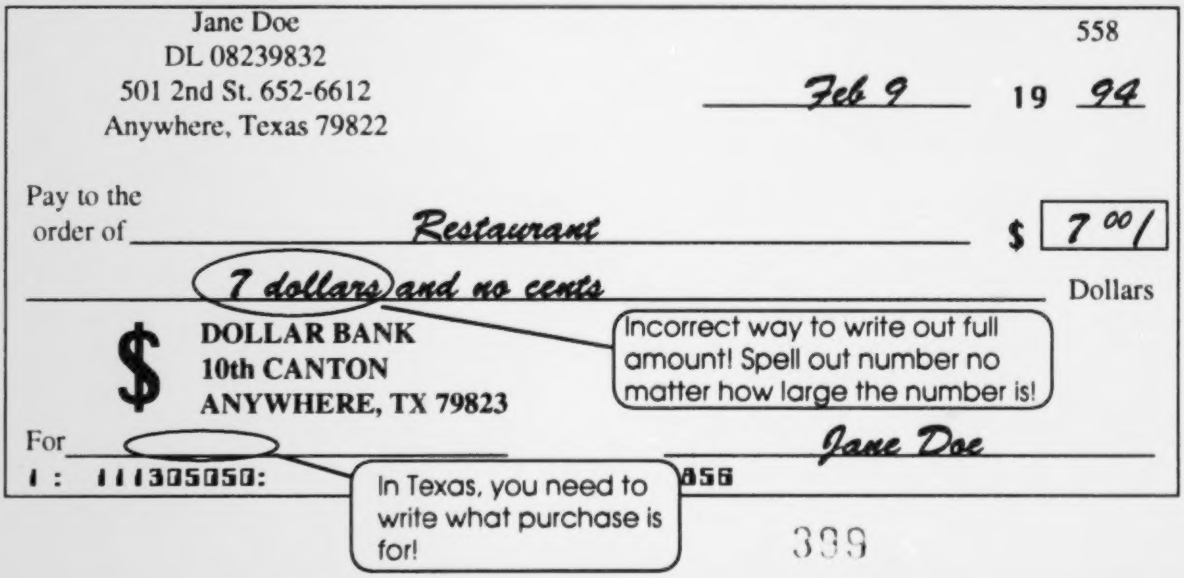
Ten dollars and 98/100 Dollars

DOLLAR BANK
10th CANTON
ANYWHERE, TX 79823

For *Lunch* *John Doe*

Name is not the same as name on top of check!

1 : 111305050: 22 788 2 8" 0856



Jane Doe
DL 08239832
501 2nd St. 652-6612
Anywhere, Texas 79822

558

Feb 9 19 *94*

Pay to the order of *Restaurant* $ *7 00/*

7 dollars and no cents Dollars

Incorrect way to write out full amount! Spell out number no matter how large the number is!

DOLLAR BANK
10th CANTON
ANYWHERE, TX 79823

For *Jane Doe*

1 : 111305050: 856

In Texas, you need to write what purchase is for!

TA 141

Keys To Successful Food Service Organization

- Financial stability and success
- Compliance with local, state, and federal regulations
- Good employee relations
- High levels of food quality and sanitation
- Plans for the future of the business
- Customer goodwill and good customer relations

One-Way and Two-Way Communication

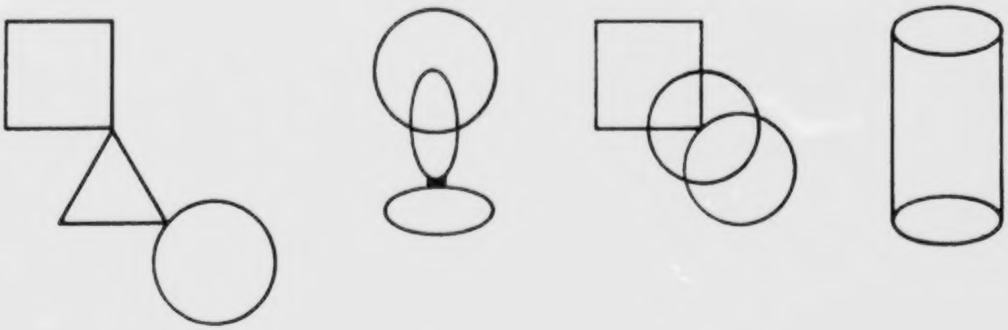
One-Way Communication

Give one student a predawn geometric picture that no one else in the class has seen. Have the students give verbal directions for drawing the picture to other students. The other students are not allowed to ask questions in one-way communication; however, the instructor may repeat the directions, if desired.

Two-Way Communication

Once again have one student give verbal directions for drawing a second predrawn geometric picture. This time the class is allowed to ask questions to clarify the directions given.

Suggested Pictures



NOTE: Feel free to make up your own geometric shapes.

Management Questions

1. To what does "interstate commerce" refer?
2. Which federal law regulates minimum wages, working hours, equal pay, overtime pay, and child labor?
3. What is the money that is collected from an employee's wages, if the wages go above a stated level which is established by federal law?
4. What is another name for the W-2 Form?
5. Which laws allow each state to establish procedures to meet the provisions of the Fair Labor Standards Act?
6. The employer determines how much income tax to withhold from each paycheck by referring to what form?
7. Which federal law related to employment is also known as the wage and hour law?
8. Social security tax is referred to by what initials?
9. Name four of the eight areas that are covered by state labor laws.
10. How are payments to social security made?
11. What law regulates businesses that have a gross sales volume of $250,000 or more?
12. Which form shows the total wages received from an employer for the year?
13. Businesses involved in interstate commerce are subject to what law?
14. When do employees receive the Wage and Tax statement each year?
15. What federal program provides benefits to retired people and survivors of wage earners?
16. Which law states that sixteen and seventeen year olds may work in most jobs except those defined as hazardous occupations?
17. Explain the purpose of the Texas Right-to-Work law.
18. An employer is required to file Form 4070, "Employer's Report on Tips." Is this a federal or state requirement?

TA 144

Menu Planning Worksheet for Schools

	Monday	Group
Meat and Meat Alternates		
Vegetable and/or Fruit		
Bread and Bread Alternates		
Milk		
Other Foods		

Tuesday	Group

	Wednesday	Group
Meat and Meat Alternates		
Vegetable and/or Fruit		
Bread and Bread Alternates		
Milk		
Other Foods		

Thursday	Group

	Friday	Group
Meat and Meat Alternates		
Vegetable and/or Fruit		
Bread and Bread Alternates		
Milk		
Other Foods		

Cycle Menu Chart

✱ Example of five sets of cycle menus charted as to week of year to be served.

Set I	Sept. 6	Oct. 11	Nov. 15	Dec. 27	Jan. 31	Mar. 6	Apr. 10	May 15
Set II	Sept. 13	Oct. 18	Nov. 22	Jan. 3	Feb. 7	Mar. 13	Apr. 17	May 22
Set III	Sept. 20	Oct. 25	Nov. 29	Jan. 10	Feb. 14	Mar. 20	Apr. 24	May 29
Set IV	Sept. 27	Nov. 1	Dec. 6	Jan. 17	Feb. 21	Mar. 27	May 1	June 5
Set V	Oct. 4	Nov. 8	Dec. 13	Jan. 24	Feb. 28	Apr. 13	May 8	June 12

Laboratory Plans

Laboratory Responsibilities

Since the *Food Service, Production, Management, and Services* course is designed to prepare students for entry-level positions in commercial or institutional food service facilities, laboratories should simulate actual job situations. To achieve this, teachers must assume the role of a commercial food service manager. The following is a brief synopsis of teachers' duties in operating the food service laboratory.

Planning Menu and Service — Planning involves deciding on the food items to be prepared and how these items will be presented to customers.

Recipe Standardization — Using standardized recipes insures the production of uniform products with consistent yield and quality and also helps accurately evaluate cost and nutritional value.

Procurement of Supplies — planning menus, determining specific quantities and qualities of items, and purchasing supplies are easier when the teacher is aware of the local market.

Detailed Planning of Production and Service — Detailed planning of production and service is required if the laboratory experience is to realistically duplicator the activities of a food service establishment. Every item on the menu must be planned to fit into the production schedule, and students should be required to meet deadlines and experience normal pressure which exist in food service job situations.

Supervision of Production and Service — The teacher must supervise activities so that the laboratory becomes a realistic work situation with each worker assigned specific tasks and supervised as they would be on the job.

Cleanup — Thorough cleanup is a must for efficient laboratory operation. Preparing and following a detailed cleanup schedule will pay dividends in both a cleaner facility and happier workers.

Evaluation — Evaluation is essential in running an effective food service operation and in training students. The teacher and students must try to discover why any undesirable events occurred and what can be done to prevent their occurrence in the future.

Public Relations — The responsibility to "sell" the food service rests squarely with management or the teacher in the school laboratory. A good public image on serving day, as well as good food, goes a long way in promoting food service education or sales.

Employee Selection and Training — The teacher should emphasize the importance of workers' following specific procedures as instructed by supervisors. Employees (even the experienced) must be trained according to the established procedures of the particular food service operation.

Problem Solving and Decision Making — Problem solving and decision making in the laboratory are easier when the teacher knows the strengths and weaknesses of each student and is also familiar with the steps in the decision making process.

Classroom Instruction — Classroom instruction can be designed to supplement laboratory experiences, helping students gain additional knowledge of food service operations, how they function and where the food service employee fits in the world of work. (The *Food Production, Management, and Services* series can be used to develop a general plan for classroom instruction.)

Food service teachers and food service managers have a great deal in common. They must decide what will be served and how it will be produced and served. They must instruct personnel in the production and service procedures, and evaluate the final products, the personnel, and the procedures. Teachers are more concerned with training and evaluating the students, while commercial food service managers focus on the process and the final product with an emphasis on costs.

Resources

Using available resources efficiently will help teachers run smooth and effective operations in their classroom laboratory. Resources available to teachers include the following:

1) **Instructional Materials** — The Food Production, Management, and Services series provides a framework for class and laboratory instruction in food services. The major competencies students should achieve to be prepared for food service work are included in the objectives and in the learning and evaluation activities in this series.

2) **Advisory Council** —Teachers should utilize advisory councils to obtain information and advice needed in planning and operating food service laboratories. Advisors include food service employees and managers, members of the local restaurant association, students, parents, and administrators. Such individuals as the president of the local restaurant association or director of the school lunch program can provide valuable input and might provide jobs for students. If disabled students are enrolled, try to include one or tow employers who hire the disabled and have already adapted their facilities, equipment, and procedures to meet the needs of the disabled worker.

3) **Food Service Facilities in the Community**— Commercial and institutional food service facilities, which exist in most communities, provide sources for enriching the food service students' experiences. Field trips to public facilities allow students to view the total food service operation in progress, observe commercial equipment in use, and compare different types of service. Managers and supervisors of various food service facilities may also be willing to come to the classroom to share their knowledge.

Laboratory Management

Food service laboratories must be managed efficiently. This involves developing procedures for controlling and maintaining laboratory facilities, equipment, and supplies, for organizing and evaluating students' work, and sometimes for sharing the laboratory with other teachers. The following areas of management are especially important.

Storage of Equipment and Supplies

An effective storage is essential for the best use of food service laboratory facilities and resources. Some suggestions for storage include the following:

1) A locked storeroom for nonperishable foods.
2) Locked storage for cleaning supplies and infrequently used equipment.
3) Refrigerator and freezer space for perishable and frozen foods. Temperatures should be checked regulary. Locks are common food service policy and help prevent pilferage.
4) Open storage (wall-hung shelving, overhead hooks, mobile racks or shelves) for dishes, pots and pans, and utensils.
5) Drawers in worktables for small equipment.
6) Space for sorting and shelving linens.

All food service employees need to know how to store food correctly and how to requisition food from the storeroom. Storeroom workers need to know how to receive, store, and issue food, and how to keep an inventory of supplies on hand.

Distribution of Supplies

In the food service laboratory, supplies should be issued using a system which eliminates confusion, insures efficient supply distribution, and maintains inventory control. The system should be similar to those used in the food service industry and should be clearly understood by the students. Some suggested procedures are outlined below:

1) The student or teacher should complete a requisition form stating the quantity, size, an/or grade of each item needed.
2) The teacher (manager) and the student assigned the role of storeroom supervisor must sign the form before the order can be filled.
3) The storeroom worker should fill the requisition under the teacher's supervision; this worker should not issue any supplies without a signed requisition.

Sanitation of the Laboratory

Sanitation rules must be carefully followed in every phase of the food service operation to avoid the spread of harmful bacteria. The following are important areas of emphasis in laboratory sanitation:

- personal habits and hygiene
- handwashing procedures
- dishwashing procedures
- warewashing procedures (pot and pan washing)
- care of kitchen equipment
- cleaning and sanitizing physical facilities
- garbage and pest control procedures
- procedures for purchasing and storing food
- procedures for preventing bacterial contamination of food
- procedures for preparing food
- procedures for serving food

All food service workers need to learn how to clean floors, walls, hoods ,and equipment. They should learn when and how to remove trash , how to dispose of garbage using garbage cans or a garbage disposer, and they should also learn the basics of pest control.

Adaptions to Accommodate Disabled Students

The teacher must work with disabled students to discover the best equipment and procedures for them. It is best to confide adaptions to procedures, if possible. When making equipment adaptions, keep in mind the equipment likely to be available in commercial food service facilities, the cost of the adaption, and whether the equipment could still be used by other employees. Be sure that nay adaptions meet food service sanitation and safety standards.

Planning Laboratory Experiences

Laboratory experiences permit students to gain actual work experience in food production and service. Using students work schedules when making laboratory assignments will insure that every student is aware of his or her duties. Student work schedules should be designed so that each student is assigned a variety of food production and service tasks and each learns to operate the equipment in the laboratory. Food service laboratory activities include the following:

1) food and beverage preparation
2) preparation of the service are

3) service food and beverages to customers and related customer services
4) cleanup activities during and after service

The number of student workers assigned to specific tasks depends on the menu and the type of service. Assigning more students than needed decreases the learning value of the experiences and may even cause confusion and hazards in the laboratory. Students not scheduled to participate in a particular laboratory experience may be assigned individual study, observation, inventory, or other tasks related to laboratory management.

Important aspects of laboratory experience planning include menu planning, recipe standardization and alteration, purchasing and handling supplies, production, service, and cleanup.

Menu Planning

Teachers must assume the responsibility for approving all menus used in the laboratory. Factors to consider when planning the menu may include the following:

- clientele preferences
- nutritional adequacy
- color, shape, texture, flavor, temperature, and variety
- space available
- quantity and quality of equipment available for preparing, holding and serving
- number of workers available and their skills
- budget, product availability, and profitability
- merchandising potential
- type of occasion
- weather conditions

Resources for menu planning include a wide variety of publications from books on quantity food preparation to menus from food service establishments. Some suggested lab plans and menus, from simple to advanced, are included following this introduction. When planning menus, work when you are not fatigued, make sure you will not be interrupted, have adequate resource materials available, use a predetermined format, and allow adequate time to work on the menu; after completion, put it aside and review it later.

Standardization Recipes

Standardization recipes (those tested to insure consistent quality through the use of standard products, amounts, methods, equipment, and processes) are an aid to achieving price control. Food service teachers should establish a file standardized recipes printed on cards 5x7 inches or larger and covered with self-adhesive plastic. Yield, as well as portion, technique, and size are predetermined. The following eight items are components usually found on standardized recipes:

1) item name
2) ingredients (form and amounts for frequently used yields)
3) methods and techniques of preparation
4) planning information (size of pan, preparation of pan, and depth of fill)
5) time and temperature
6) yield (total quantity and number of servings of a specified size)
7) serving information (size, equipment, technique, garnish, and special holding instructions)
8) any other pertinent information

Purchase of Food

Purchasing the raw materials is the first step in production. Purchasing procedures are affected by the closeness of supply, availability of storage space, capital, general market and economic conditions, shelf life of food products, and production needs.

Take advantage of convenience foods available on the quantity food market. Teachers can learn from advisory council members which foods are available in convenience forms, which are most frequently used in local service, which are the best buys, and which purveyor is the best source of supply. Convenience foods are an essential part of simulating actual food service operations, and they enable teachers to serve a complete meal while concentrating on new skills in only one or two areas. The following tips will bc helpful in purchasing supplies for the food service laboratory:

1. Be aware of what the market has to offer. Visit with local salespeople, look through local groceries, and attend food shows or conventions where food products are being shown.

2. Determine needs in terms of quality and quantity. State needs specifically (quantity, quality or grade, size of units, form, and style). Know what to look for on food product labels to determine if items meet specified requirements.

3. Purchasing procedures vary from school to school and from city to city so discuss with local administrators the best way to purchase goods for the laboratory. Consider some of the following money-saving ideas: (a) Investigate purchasing from local institutional wholesalers. Frequently these suppliers specialize in meat, produce, frozen goods, staple goods, canned goods, or paper products. Some sell a combination of these items. Call as many as possible. Prices may vary between sources form day to day. (b) Sometimes products are less expensive at the supermarket. (c) Check local damaged -freight outlets. Inspect products carefully before buying. Buy one item and check before buying in quantity. (d) Buy with another group (such as the school lunchroom, a local hospital, or a restaurant). (e) Buy in bulk quantities when the price is right if storage is available. (f) Be flexible. If a product increases drastically in price, change the menu. (g) Some local groceries may give a discount to schools. Frequently, this means a cash discount. (h) Some companies offer a discount of 5-15 percent for prompt payment. (i) When shopping in person, list the items needed from each source. The list should be planned so that you will drive the shortest distance between stores. (j) Be sure to take proper requisition forms to prevent time wasted in returning to school for them. (k) Try a variety of brands. Some lesser known, less expensive brands are as good as the more familiar ones.

4. Be a tyrant about receiving goods in both the quality and quantity ordered.

5. Store items promptly, properly, and under lock and key.

Receiving, Storing, and Issuing Foods

Food service teachers hold the final responsibility for receiving, storing, and issuing goods in the laboratory. Skillful purchasing must be combined with careful inspection of the products delivered. Proper storage procedures must be followed to retain full food value. When foods are issued from the storeroom, care should be taken to fill approved orders accurately, using items on a first-in, first-out basis. In food service business, these tasks are performed by experienced workers. Since teachers assume this responsibility in the laboratory, safeguards should be built into the system.

Production, Service, and Cleanup Procedures

The phases of production, service, and cleanup operate much more efficiently when specific plans are made and guidelines followed. The following tips aid in carrying out phases of food service:

1) Make a list of everything to be done.
2) Plan and make written assignments for each task.
3) Make sure students know how to execute assigned tasks through training, supervision, and follow-up.
4) Be thorough and precise. Double-check plans against the menu to make certain you are not forgetting anything.
5) Develop a form to assist in planning and remembering all of the details. Experiment with several forms and make multiple copies when one is found which is best suited for the operation.

Summary

Every food service establishment is different. Supervisors in two food service businesses may require very different procedures to be followed in the performance of the same task. Since there is no one correct way to perform any food service task, food service students should learn that following instructions given by future employers is very important even if it means using different methods than those taught in the food service laboratory. A proper attitude and sense of responsibility are two of the major assets an employer seeks when hiring someone.

Just as in other operations, certain lines of authority exist in the operation of food service establishments. Lines of authority indicate that specific relationships exist between various departments of the facility and between individuals working there. Personnel need to know the line of communication and authority. Employees must know their duties, authority, responsibilities, and to whom they are accountable. These same conditions should exist in the food service laboratory. Students need to learn correct procedures for communicating with the right people and for following lines of authority.

Tuna Salad Sandwich
Chicken Salad Sandwich
Chocolate Pudding
Iced Water/Iced Tea

Alternatives:	Pimento cheese sandwich, canned fruit
Food Service Basics:	Nutrition--basic food groups (Chapter 7)* Safety and Sanitation--individual cleanliness (Chapter 5) sandwich spreads with mayonnaise (Chapter 15)
Equipment:	Dishwasher (Chapter 11) Bread knives, spreaders (Chapter 9) Scoop (Chapter 9) Can opener (Chapter 10)
Food Preparation Techniques`s	Assembly line method (Chapter 15) Mixing (Chapter 15) Portioning (Chapter 13) Types of sandwiches (Chapter 15) Types of breads (Chapter 23) Preparing iced water and tea (Chapter 14) Garnishing (Chapters 13, 15, and 16)
Food Service Techniques:	Type of Service: counter (Chapter 31) fast food (Chapter 31) One set price, two menu choices Cashier at beginning of line
Additional Information:	This menu is to acquaint students with general laboratory techniques and to introduce them to the laboratory setting. Many convenience foods have been included to help students prepare an entire meal with a limited amount of preparation.

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*Indicates chapter number reference in *Food Production, Management, and Services: Reference Book.*

Lab #2

Submarine Sandwich
Tossed Salad
Cake
Iced Water/Iced Tea

Alternatives:	Ham and cheese sandwich, fruit salad, vegetable relishes
Food Service Basics:	Nutrition--basic four food groups (Chapter 7)* Safety and Sanitation--holding time for vegetables on salad bar tossed salads (Chapter 16)
Equipment:	Small equipment Knives (Chapter 9) Toaster (Chapter 10) Dishwasher (Chapter 11)
Food Preparation Techniques:	Assembly line method (Chapter 15) Portioning (Chapters 13 and 15) Types of sandwiches (Chapter 15) Preparing iced water and tea (Chapter 14) Garnishing (Chapters 13, 15, and 16)
Food Service Techniques:	Type of Service: counter (Chapter 31) fast food (Chapter 31) One menu choice, individual items priced Cashier at the end of the line
Additional Information:	Use a purchased sheet cake. Students learn portioning and serving of a baked product at this point in time. If more convenient, teacher might prepare sheet cake.

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book*.

Lab #3

Grilled Cheese Sandwich
Fruit Salad
Iced Tea/Milk
Purchased Cookies

Alternatives:	Reuben sandwich, French toast, melon boat, fresh fruit cup
Food Service Basics:	Nutrition--fruits in the diet (Chapters 22 and 7)* milk in the diet (Chapter 7) Safety and Sanitation--holding time for fresh fruits (Chapter 22) storage of milk and cheese (Chapters 20 and 14)
Equipment:	Grill (griddle) (Chapter 10) Refrigerator (Chapter 11) Disposal (Chapter 11)
Food Preparation Techniques:	Assembly line method (Chapter 15) Portioning (Chapter 13) Types of sandwiches (Chapter 15) Garnishing (Chapters 13, 15, and 16)
Food Service Techniques:	Type of Service: counter (Chapter 31) fast food (Chapter 31) One menu choice, individual items priced Cashier at end of the line
Additional Information:	First introduction to serving food hot. This should be the main emphasis of the lab.

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Lab #4

Hamburger on a Bun
French Fried Potatoes
Iced Teas/Lemonade
Soft Drinks
Ice Cream

Alternatives:	Hot dogs, onion rings, fried zucchini, sherbert, pudding
Food Service Basics:	Nutrition--cooking with fats (types of fats) (Chapter 7)* fruit beverages compared to fruits (Chapter 14) milk in the diet (Chapter 7) Safety and Sanitation--fats (Chapter 6) keeping frozen foods (Chapter 12)
Equipment:	Grill (Chapter 10) Deep fat fryer (Chapter 10) Freezer (Chapter 11) Ice maker (Chapter 10) Soft drink dispenser (Chapter 14)
Food Preparation Techniques:	Portioning (Chapter 13) Types of sandwiches (Chapter 15) Garnishing (Chapters 13, 15, and 16) Cooking in fat (Chapter 22) Fruit-based beverages (Chapter 14) Soft drinks (Chapter 14) Desserts (Chapter 24)
Food Service Techniques:	Type of service: fast food (Chapter 31) counter and bag (takeout) service One entree choice, several choices in beverage Individual items priced Cashier/waitperson at counter Discuss automatic pricing machines
Additional Information:	This lab can simulate a fast food establishment.

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Lab #5

Baked Potatoes Stuffed with Chicken ala King or Beef and Mushroom Gravy
Fruited Gelatin Salad
Iced Tea/Iced Water

Food Service Basics:	Nutrition--potatoes (Chapter 7)* baking vegetables (Chapter 22) Safety and Sanitation--holding time for gravies (Chapter 18)
Equipment:	Oven (Chapter 10) Small equipment (Chapter 9) Hot food unit (chapter 11) Molds or pans (Chapter 9) Serving utensils (Chapter 9) Refrigerator (Chapter 11)
Food Preparation Techniques:	Preparing sauces (Chapter 18) Garnishing on a serving line (Chapter 31) Baking vegetables (Chapter 22) Gelatin (how preparation affects portioning) (Chapter 16)
Food Service Techniques:	Type of Service: cafeteria (Chapter 31) Two entrees, different prices Individual items priced
Additional Information:	This may be the first time a recipe is used. Teacher may wish to include information on recipe abbreviations and alterations.

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Lab #6

Canned Tomato Soup
Hard Rolls
Cheese Slices and Ham Roll-ups
Prepared Macaroni Salad
Iced Tea/Lemonade/Fruit Punch

Food Service Basics:	Use of convenience foods (Chapter 13)*
Equipment:	Range top (Chapter 10) Soup kettles (Chapter 9 and 10) Cheese slicer (Chapter 10) Meat slicer (Chapter 10) Blender (Chapter 10)
Food Preparation Techniques:	Using seasonings and spices (Chapter 13) Working with convenience foods (Chapters 18, 23, and 19) Garnishing convenience foods (Chapter 18)
Food Service Techniques:	Type of Service: cafeteria (Chapter 31) Serving soups (Chapter 18) Serving individual servings of cold cuts and cheese (Chapter 20)
Additional Information:	The main emphasis of this lab is to use convenience foods and modify them or food service establishments.

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*Indicates chapter number to reference in *Food Production, Management, Services: Reference Book.*

Lab #7

Egg Casserole
Pork Sausage Links
Toast, Butter and Jelly
Orange Juice
Coffee/Tea Milk

Alternatives:	Baked eggs, bacon, fresh fruit
Food Service Basics:	Nutrition--egg nutrition (Chapter 7)* pork nutrition (Chapter 7) importance of breakfast (Chapter 7) Safety and Sanitation--egg safety (Chapter 20) trichina (Chapter 19)
Equipment:	Oven (Chapter 10) Coffee maker or urn (Chapter 10) Toaster (Chapter 10)
Food Preparation Techniques:	Cooking with eggs (Chapter 20) Cooking pork (Chapter 19) Making coffee (Chapter 14)
Food Service Techniques:	Serving breakfast foods (Chapter 30) Portioning (Chapter 13)
Additional Information:	This can be a breakfast or a brunch by altering the basic menu.

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*Indicates chapter number to reference in *Food Production, Management, and Services :Reference Book.*

Tuna Noodle Casserole
Canned Peas
Hot Dinner Rolls
Coffee/Tea/Milk
Dessert Fruit Plate

Alternatives:	Chicken pie, chicken and rice casserole, canned carrots, canned beans
Food Service Basics:	Nutrition--fresh vs. canned vegetables (Chapter 22)* sodium in canned products (Chapter 12) Safety and Sanitation--safety in mixtures (Chapter 6) holding time for fresh fruits (Chapter 22)
Equipment:	Warming oven (Chapter 10) Pot and pan sink (Chapter 11) Range top (Chapter 10)
Food Preparation Techniques:	Seasonings foods for quantity cooking (Chapter 13) Measuring (Chapter 9)
Food Service Techniques:	Type of Service: cafeteria (Chapter 31) Manual dishwashing (Chapter 5) Serving hot breads (Chapter 23)

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book*.

Roast Turkey
Sweet Potato
Baked Apples
Tea/Milk/Buttermilk
Cooked Tapioca Pudding

Alternatives:	Baked chicken, dressing, peach or pear halves, gelatin, green beans
Food Service Basics:	Nutrition--nutrition for hospitals and nursing homes, therapeutic diets (Chapter 8)* Safety and Sanitation--cooking turkey or chicken without dressing (Chapter 19) milk service (Chapter 14)
Equipment:	Hot and cold carts (Chapter 9)
Food Preparation Techniques:	Roasting meats (Chapter 19) Baking fruits and vegetables (Chapter 22) Cooking with starches (Chapter 21) Serving milk and milk products (Chapter 14) Storing cooked Poultry (Chapter 19)
Food Service Techniques:	Type of Service: serving for institutions (Chapter 32) Hospitals Nursing homes School lunches
Additional Information:	This menu could be served on a cafeteria line or tray. Serve to simulate a hospital or nursing home cafeteria.

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Lab #10

Chef Salad
Blueberry Muffins/Corn Muffins/Bran Muffins
Iced Tea/Milk/Iced Water
Apple Crisp

Alternatives:	Tuna salad, salad bar, any variety muffins
Food Service Basics:	Nutrition--vegetables, breads, and cereals (Chapter 7)*
Equipment:	Scales (Chapter 10) Measuring cups (Chapter 9) Mixer (Chapter 10)
Food Preparation Techniques:	Adapting quick bread mixes (Chapter 23) Preparing salad dressings (Chapter 16) Simple dessert preparation (Chapter 24)
Food Service Techniques:	Type of Service: cafeteria (Chapter 24) Presentation of prepared salads (Chapter 16) Serving hot quick breads (Chapter 23)
Additional Information:	Skills used in this lab have generally been presented in earlier labs. This gives students a chance to review and concentrate on presentation.

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book*.

Soup and Bread Bar
Carrot and Celery Sticks
Iced Tea/Milk/Iced Water
Peach Half

Soup Bar:	French onion soup (clear), cream of potato (cream-base), gazpacho (cold)
Bread Bar:	Corn bread, muffins, drop biscuits
Alternatives:	Vegetable soup (clear), cream of tomato (cream-base), vichyssoise (cold)
Food Service Basics:	Nutrition--quick breads (Chapter 23)* soups (Chapter 18) Safety and Sanitation--holding time for soups (cream) (Chapter 18) curdling of cream soups
Equipment:	Steam jacketed kettles (Chapter 10) Mixer (Chapter 10)
Food Preparation Techniques:	Preparing quick bread batters (Chapter 23) Preparing cream sauces (Chapter 18)
Food Service Techniques:	Type of Service: cafeteria (Chapter 31) Serving soups (Chapter 18) Serving breads (chapter 23)

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*Indicates chapter number to references in Food Production, Management, and Services: Reference Book.

Dessert Bar
Iced Teas/Hot Tea/Coffee

Dessert Bar:	White cake with fudge frosting, yellow cake with butter cream frosting, chocolate cake with boiled, gingerbread with lemon sauce
Food Service Basics:	Nutrition--the role of desserts in diet (Chapter 7)* beverages (Chapter 7) Safety and Sanitation--hot beverages (Chapter 14)
Equipment:	Mixer (Chapter 10) Cake pans (Chapter 9) Spatula (Chapter 9)
Food Preparation Techniques:	Types of flours (Chapter 23) Preparing shortened cakes (Chapter 25) Preparing major types of frostings (Chapter 25) Preparing beverages (Chapter 14)
Food Service Techniques:	Type of Service: buffet (Chapter 29)
Additional Information:	Depending on how the food will be served to the public, this lab could be combined with a simple sandwich lab to provide a balanced meal.

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*Indicates chapter number to reference in *Food Production, Management, and Services : Reference Book.*

Lab #13

Braised Round Steak over Noodles
Spaghetti and Meat Sauce
Parkerhouse Rolls
Tossed Salad
Iced Water/Iced Tea/Coffee
Ice Cream

Alternatives:	Swiss steak and rice, chop suey over Chinese noodles, crescent rolls, fan tans, cheese/chive rolls, fruit cup, gelatin, dessert, sherbert
Food Service Basics:	Nutrition--role of fats in the diet (Chapter 7)* pasta and rolls as carbohydrates (Chapter 7)
Equipment:	Colander (Chapter 9) Bakery equipment (Chapter 10)
Food Preparation Techniques:	Preparing gravies (Chapter 18) Cooking pasta (Chapter 21) Shapes of yeast rolls (use frozen dough) (Chapter 23)
Food Service Techniques:	Type of Service: cafeteria (Chapter 31) More than one entree Several pricing patterns
Additional Information:	This is the first lab which truly resembles a full-service cafeteria. Timing is very important.

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Chicken Strips**
Steak Fingers
Baked Potatoes
Green Beans Almandine
Harvard Beets
Iced White Cake

Alternatives:	Salmon croquettes, veal cutlets, candied sweet potatoes, scalloped corn, petit fours, cup cakes **May be served with cream gravy
Food Service Basics:	Nutrition--fats and oils (Chapter 7)* vegetables *(Chapter 7) starches (Chapter 7) Safety Sanitation--frying with fats and oils (Chapter 19) cooking meats (Chapter 19)
Equipment:	Grill (Chapter 10) Deep fat fryer (Chapter 10) Can sizes and grades (Chapter 13)
Food preparation Techniques:	Using canned vegetables in various ways (Chapter 22)
Food Service Techniques:	Type of Service: cafeteria (Chapter 31)

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book.*

Lab #15

Baked Cod Fillets
Baked Chicken Breasts
Mashed Potatoes
Curried Rice
Peas and Carrots/Spanish Green Beans
Corn O'Brien
Gelatin Salad/Cottage Cheese Pear Salad
Biscuits

Food Service Basics:	Nutrition--baking vs. frying-claories, cholesterol (Chapter 7)* Safety and Sanitation--holding for baked meats (Chapter 19)
Equipment:	Rolling pin (Chapter 9) Mixer (Chapter 10)
Food Preparation Techniques:	Rolled biscuits (Chapter 23) Vegetable combinations (Chapter 22) Baked meats (Chapter 19)
Food Service Techniques:	Type of Service; cafeteria (Chapter 31)

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book.*

Lab #16

Breaded Shrimp
Cocktail Sauce
French Fries/Peas & Mushrooms
Cloverleaf Rolls

Alternatives: Chicken bits, steak fingers, french-fried onion rings, french-fried potato wedges, Parkerhouse rolls, whole wheat rolls, spinach souffle, broccoli au gratin

Food Service Basics: Nutrition--convenience foods (chapters 13, 19, and 22)*
Safety and Sanitation--precautions for frying convenience foods

Equipment: Deep fat fryer (Chapter 10)
Microwave oven (Chapter 10)

Food Preparation Techniques: Yeast breads (chapter 23)
Using frozen foods

Food Service Techniques: Type of Service: American (Chapter 29)

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Lab #17

Roast Beef au Jus
Escalloped Potatoes
Glazed Carrots
Gelatin Salad
Iced Tea/Coffee/Water
Trifle

Alternatives:	Roast pork, turkey, ham, scalloped corn, candied sweet potatoes, baked acorn squash, tossed green salad, baked custard with cookies, bread pudding
Food Service Basics:	Nutrition--vitamin A (Chapter 7)* serving size--meats (Chapter 13) Safety and Sanitation--(Chapters 3 and 6)
Equipment:	Carving equipment (Chapter 9)
Food Preparation Techniques:	Roasting meats (Chapter 19) Baking vegetables (Chapter 22) Combination desserts (Chapter 24)
Food Service Techniques:	Types of service: buffet (Chapter 29)

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Lab #18

Deviled Eggs
Guacamole Dip/Corn Chips
Chicken Puffs
Assorted Cold Meat Wedges
Fruit Kabobs
Crab Canapes
Punch

Alternatives:	Crab dip, French onion dip, vegetable relishes and dips, cheese straws, cocktail weiners in sauce, fruit chunks, stuffed celery
Food Service Basics:	Nutrition--(Chapter 7)* Safety and Sanitation--mayonnaise holding time (Chapter 15)
Equipment:	Specialized small equipment (Chapter 9) Table linens (Chapter 29)
Food Preparation Techniques:	Shaping foods (Chapter 17) Garnishing (Chapter 17) Deviled eggs (Chapter 17) Puff pastry (Chapter 170 Fruit/vegetable-based beverages (Chapter 14)
Food Service Techniques:	Type of Service: buffet (Chapter 31) Serving hors d'ourves (Chapter 17)

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Lab #19

Monte Cristo/Sandwich
Potato Chips/ Pickle Fans
Coleslaw
Angel Food Cake
Milkshake

Alternatives:	Reuben sandwich, hot submarine sandwich, corn chips, cheese puffs, carrot/celery sticks, bell pepper rings, cucumber sticks, orange chiffon cake, cocoa chiffon cake, vegetable/gelatin salad, potato salad
Food Service Basics:	Nutrition--milk-based beverages (Chapters 7 and 14)* Safety and Sanitation--milk-based foods (Chapter 14)
Equipment:	Food chopper (Chapter 10) Grill (Chapter 10)
Food Preparation Techniques:	Milk-based beverages (Chapter 14) Dipped hot sandwiches (French Fried) (Chapter 10) Coleslaw (Chapter 16) Foam (Angel/Chiffon) cakes (Chapter 25)
Food Service Techniques:	Type of Service: seated (Chapter 29) Table setting (Chapter 29)

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book.*

Chicken-Fried Steak
Fried Catfish
Potato Dals/Pinto Beans
Cherry Cobbler

Alternatives:	Steak fingers, chicken bits, macaroni salad, baked beans, black-eyed peas, apple crisp
Food Service Basics:	Nutrition--Legumes (Chapter 7)*
Equipment:	Steamer (Chapter 10) Fryer (Chapter 10)
Food Preparation Techniques:	Fried meats (Chapter 19) Cooking dried beans/peas (Chapter 22) Potato salad (Chapter 16) Preparing desserts (Chapter 24)
Food Service Techniques:	Type of Service : seated (Chapter 29) American (Chapter 29)

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Scrambled Eggs
Fried Eggs
Waffles/Biscuits/Cinnamon Rolls
Coffee/Tea/Milk
Fruit Cup

Alternatives:	Simmered eggs, baked eggs with cheese, pancakes, yeast coffee cake, pecan rolls
Food Service Basics:	Nutrition--eggs in the diet (Chapters 7 and 20)* quick breads/griddle cakes (Chapter 23)
Equipment:	Grill (Chapter 10) Warming oven (Chapter 10) Oven (Chapter 10) Toaster (Chapter 10)
Food Preparation Techniques:	Rolled biscuits (Chapter 23) Pancakes/waffles (Chapter 23) Sweet yeast dough (Chapter 23) Glaze (Chapter 23) Icings (Chapter 25)
Food Service Techniques:	Type of Service: seated (Chapter 24) Menu items for choice (Chapter 30)

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Lab #22

Baked Pork Chops with Apples
Meat Loaf with Winter Squash
Au Gratin Potatoes
Corn Muffins
Coffee/Tea/Milk
Assorted Baked Cookies

Food Service Basics: Nutrition--cookies in the diet (Chapter 24)*
Safety and Sanitation--trichina (Chapter 19)

Equipment: Cookie baking equipment (Chapter 24)

Food Preparation Techniques: Preparation of five basic types of cookies (Chapter 24)--drop
pressed
rolled
bar
refrigerator

Food Service Techniques: Type of Service: seated (Chapter 29)

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book*.

Stuffed Bell Peppers
Glazed Carrots or Candied Sweet Potatoes
Waldorf Salad
Yeast Bread

Food Service Basics:	Nutrition--vegetables (Chapters 7 and 22)* yeast breads (Chapters 7 and 23) Safety and Sanitation--cooking ground beef (Chapter 19)
Equipment:	Bread baking equipment (Chapter 23)
Food Preparation Techniques:	Yeast breads (Chapters 10 and 23) Loaves and mini-loaves (Chapter 23)
Food Service Techniques:	Type of Service: seated (Chapter 29)

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Lab #24

Cream of Tomato Soup
Minestrone
Ham Quiche

Food Service Basics:	Nutrition--soups (Chapter 18)* Safety and Sanitation--holding time: soup/quiche (Chapters 18 and 20)
Equipment:	Soup kettle (Chapter 10)
Food Preparation Techniques:	Cooking with spices (Chapter 13) Soup preparation (Chapter 18) Quiche preparation (Chapter 29)
Food Service Techniques:	Type of Service: seated (Chapter 29)

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Baked Ham
Rice Pilaf/Broccoli with Hollandaise
Popovers
Sponge Cake

Alternatives:	Roast Turkey, beef roast, cauliflower with cheese sauce, green beans with hollandaise, muffins, angel food cake
Food Service Basics:	Nutrition--meats (Chapter 19)* vegetables with sauces (Chapter 22) Safety and Sanitation--holding time for Hollandaise sauce, cooking meats (Chapters 18 and 19)
Equipment:	Roasting pans (Chapter 9) Baking pans (Chapter 9)
Food Preparation Techniques:	Sponge cake (Chapter 25) Popovers (Chapter 23) Hollandaise sauce (chapter 18)
Food Service Techniques:	Type of Service: buffet (Chapter 31) Arranging buffet tables (Chapter 310

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Salad Bar
Bread Sticks
Variety of Pies

Alternatives:	Toast wedges, crackers, stuffed tomato salad, fried pies, tarts
Food Service Basics:	Nutrition--pies (Chapter 7 and 26)* salads (Chapter 16)
Equipment:	Pie pans (Chapter 26) Pastry blender (Chapter 9)
Food Preparation Technique:	Pies (Chapter 26)--graham cracker crusts pastry fruit custard cream pies
Food Service Techniques:	Type of Service: seated (Chapter 30) Dessert served at table (Chapter 30)

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Enchilada
Spanish Rice/Beans
Lettuce Salads
Hot Salads
Lemon Sherbert

Food Service Basics:	Nutrition--ethnic foods in the diet (Chapter 7)* vegetables in ethnic foods (Chapter 7)
Equipment:	Steamer (Chapter 10)
Food Preparation Techniques:	Ethnic foods--spices (Chapter 13)
Food Service Techniques:	Type of Service: seated (Chapter 29)
Additional Information:	This lab could be served buffet or family style.

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book*.

Lab #28—Optional

Omelets
Spanish Sauce
Mushroom Sauce
Seafood/Cheese Sauce
Hash Browns/Toast
Fruit Cup

Alternatives:	Stuffed potatoes, assorted toppings and/or sauces, peach or apple pie
Food Service Basics:	Nutrition--cooking eggs (Chapter 20)* sauces (Chapter 18) baking potatoes (Chapter 22) pies (Chapter 26)
Equipment:	Omelet pan (Chapter 20) Toaster (Chapter 10) Oven (Chapter 10)
Food Preparation Techniques:	Sauce preparation (Chapter 18) Preparation of Pie (Chapter 26)
Food Service Techniques:	Type of Service: buffet (Chapter 31) Serving pie (Chapter 26)

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*Indicates chapter number to reference in *Food Production, Management, and Services: Reference Book.*

Lab #29—Optional

Cake Decorating

Food Service Basics:	Nutrition--sugars (Chapter 7)* Safety and Sanitation--cooking frostings (Chapter 25)
Equipment:	Cake decorating equipment (Chapter 25)-- spatula designing tips tubes flower stems Mixer (Chapter 10)
Food Preparation Techniques:	Cooked and uncooked frosting (Chapter 25) Decorating with frostings (Chapter 25)
Food Service Techniques:	Serving cake (Chapter 25)

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Lab #30—Optional
Ethnic Meal

Sweet and Sour Chicken
Beef Chop Suey
Rice/Noodles
Egg Rolls
Hot Tea

Food Service Basic:	Nutrition--vegetables in ethnic foods (Chapter 22)* ethnic sauces (Chapter 18) Safety and Sanitation--cooking chicken and beef (Chapter 19)
Equipment:	Wok or skillet (Chapter 10)
Food Preparation Techniques:	Cooking meats and vegetables in a wok (Chapters 19 and 22) Cooking egg rolls (Chapter 22)
Food Service Techniques:	Type of Service: seated (Chapter 29) Serving hot tea (Chapter 14)
Additional Information:	This lab could be served family style. Chopsticks could be used.

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Chapter Tests

CHAPTER 1 TEST
The Food Service Industry

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The food service industry is
A. one of the largest industries in the United States.
B. the singlest largest employer of young people in the nation.
C. one of the nations's fastest growing industries.
D. all of the above.

2. ________ How many meals per day does the average American eat away from home
A. 1 out of 2
B. 1 out of 3
C. 1 out of 4
D. 1 out of 5

3. ________ The need for new food service employees is
A. increasing steadily.
B. increasing slightly.
C. declining slightly
D. declining steadily.

4. ________ Which of the following societal changes has contributed to the growth of the food service industry?
A. increased labor costs
B. inflation
C. employment of women
D. all of the above

5. ________ A food service facility which serves food to individuals at a table or booth provides
A. seated-service.
B. self-service.
C. combination-service.
D. full-service.

6. ________ Which of the following food service units is most likely to provide food to the general public?
A. in-plant feeding units
B. institutional feeding units
C. central kitchen or commissary
D. commercial establishment

7. ________ An agreement which assigns the right to use a name or formula in return for a fixed fee or percentage of gross volume is a
A. partnership.
B. corporation.
C. franchise
D. chain.

8. ________ Salaries and fringe benefits in food service jobs
A. are not as good as in other industries.
B. are similar to other industries.
C. are better than in other industries.
D. are determined by local government regulations.

9. ________ Job advancement in food service
A. is extremely limited.
B. requires additional formal education.
C. is often quite rapid.
D. is usually quite slow.

10. ________ Which of the following is a disadvantage of food service work?
A. fringe benefits
B. demand for employees
C. work atmosphere
D. work hours

CHAPTER 2 TEST
Food Service Careers

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The area of a food service establishment not usually seen by customers is referred to as the
A. management area.
B. service area.
C. back-of-the-house.
D. front-of-the-house

2. ________ When determining the staff needed for a food service establishment, management should consider all of the following except the
A. size of operation.
B. number of job applicants.
C. menu.
D. service.

3. ________ An example of an unskilled front-of-the-house food service job is
A. dietetic technician.
B. host/hostess.
C. kitchen helper.
D. dinning room attendant.

4. ________ An example of a semi-skilled back-of-the-house food service job is
A. cook, specialty.
B. coffee maker.
C. waiter.
D. chef.

5. ________ At which job level are skills for jobs often learned in training programs in high school or community college?
A. unskilled
B. semi-skilled
C. skilled
D. supervision/management

6. ________ An example of a control job is
A. porter.
B. baker.
C. storeroom supervisor.
D. banquet manager.

7. ________ The duties of a food service employee in a mid-management job include
A. making finance and policy decisions.
B. overseeing daily production operations.
C. expressing artistic abilities in food preparation.
D. implementing policy and making routine operational decisions.

8. ________ A supervision job that requires a four-year degree is
A. cook, head.
B. manager, restaurant.
C. dietician.
D. host/hostess.

9. ________ A food industry job opportunity not directly involved in food production, management , or service is
A. catering.
B. equipment design.
C. steward.
D. maitre d'hotel.

10. ________ To be a successful employee in the food service industry, the skills you will need least are
A. tasting skills.
B. communication skills.
C. math skills.
D. human relation skills.

CHAPTER 3 TEST
Safety

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ All of the following are responsible for contributing to the safety of a food service operation except
   A. management.
   B. government.
   C. employees.
   D. competitors.

2. ________ City, state, and federal governments enforce safety standards in food service establishments in all of the following ways except
   A. permits.
   B. funding.
   C. licensing.
   D. inspection.

3. ________ Under the OSHA act if 1970, an employer must
   A. hire minority workers.
   B. pay health insurance premiums for employees.
   C. Keep the place of employment free of recognized hazards.
   D. serve nutritionally balanced meals.

4. ________ Employees of a food service establishment are responsible for
   A. establishing and enforcing safety rules and procedures.
   B. organizing safety training classes.
   C. keeping accident reports in permanent files.
   D. observing safety rules and procedures.

5. ________ A food service worker loyal to the employer will
   A. ignore hazards in the place of employment.
   B. know the location of emergency equipment and how to use it.
   C. not bother the employer with accident reports.
   D. leave all safety responsibility to management.

6. ________ Employee accidents in food service establishments are rarely caused by
   A. safe acts.
   B. accident-proneness.
   C. mental fatigue.
   D. physical fatigue.

7. ________ Avoid fatigue, do all of the following except
   A. practice good posture.
   B. develop good relations with co-workers.
   C. consume a nutritious diet.
   D. work through periodic rest breaks.

8. ________ To prevent falls, do all of the following except
   A. wipe up spills on the floor.
   B. move quickly when going from place to place in the work area.
   C. keep floors in the work area dry and clean.
   D. use a sturdy stepladder for reaching objects on high shelves.

9. ________ To prevent cuts
   A. choose knives that are not very sharp.
   B. pick up broken pieces of glass with your bare hands.
   C. put soiled knives in a sink of sudsy water.
   D. carry a knife with point down and cutting edge away from you.

10. ________ To prevent burns in the food preparation process
   A. turn pan handles toward the front of the range.
   B. wear loose-fitting clothes.
   C. get help to carry heavy, hot containers
   D. be sure foods put into hot grease are cold and wet.

CHAPTER 4 TEST
Emergency Procedures

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The employee who first notices a fire should immediately
   A. try to put it out alone.
   B. evacuate all persons in the building.
   C. get help.
   D. leave the premises to call the fire department.

2. ________ To extinguish a small grease fire, do any of the following except
   A. put a lid on a pan or cover a griddle with a fire blanket.
   B. spray the fire with water.
   C. douse the fire with baking soda.
   D. turn off the burner or heating element.

3. ________ A Class A fire extinguisher will extinguish
   A. live, electrical fires.
   B. paper, wood, or cloth fires.
   C. dry chemical fires.
   D. grease, oil, gasoline, and paint fires.

4. ________ A tornado watch means
   A. conditions are such that tornadoes could develop.
   B. take cover immediately.
   C. the same as an attention alert signal.
   D. a tornado has been sighted.

5. ________ Evacuation plans should include all of the following except
   A. require that evacuation routes be posted for customers and employees to see.
   B. require that evacuation routes be kept barrier-free at all times.
   C. be administered only by top management personnel during emergencies.
   D. include a role for all employees and supervisors in carrying out the plan.

6. ________ If a customer is choking, do all of the following except
   A. first treat the victim for shock.
   B. deliver four sharp blows between the victim's shoulder blades.
   C. use abdominal or chest thrust first aid on the victim.
   D. act quickly to aid the victim.

7. ________ The most severe type of burn is
A. first-degree.
B. second-degree.
C. third-degree.
D. fourth-degree.

8. ________ Recommended first aid for second-degree burns before covering with a dry, sterile dressing is
A. place under cold water.
B. apply ointment to the burned area.
C. break blisters as they form.
D. place under warm water.

9. ________ For severe cuts, first quickly
A. apply a tourniquet.
B. put cold application on injured area.
C. cleanse wound with warm soapy water.
D. apply pressure, by hand, over a clean dressing.

10. ________ When a food service employee or a customer has an accident at the food service establishment, all the following should occur except
A. the victim should receive immediate care.
B. the accident should be reported to the supervisor.
C. a written accident report should be completed.
D. the supervisor should call the victim's insurance company.

CHAPTER 5 TEST
Personnel, Equipment, and Facility Sanitation

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Sanitary, or antiseptic, means free from
   A. visible soil.
   B. detergent film.
   C. disease producing microorganisms.
   D. water spots.

2. ________ A federal agency that does not make or enforce sanitation standards is the
   A. Food and Drug Administration (FDA).
   B. U.S. Department of Agriculture (USDA).
   C. Bureau of Weights and Measures
   D. U.S. Center for Disease Control.

3. ________ The food service worker's most important personal sanitation task is
   A. handwashing
   B. wearing clean clothes.
   C. wearing a hair net.
   D. bathing.

4. ________ For dishwashing in a food service establishment, sanitation is ensured by
   A. heat high enough and long enough to kill microorganisms.
   B. treatment with a biological agent.
   C. use of three sinks for hand dishwashing or pot washing.
   D. all of the above.

5. ________ For sanitary hand dishwashing
   A. chemical sanitizing solutions cannot be used.
   B. immerse items in hot water at 170°F for 30 seconds in the third sink.
   C. cool the items in the third sink by dipping them in water at 60°F.
   D. towel dry all dishes and utensils.

6. ________ For sanitary machine dishwashing, the most important concern is to
   A. load the machine correctly.
   B. clean the dishwashing machine once a day.
   C. presoak, sort, and prerinse all dishes and utensils.
   D. maintain proper water temperatures and detergent and rinse agent levels.

7. ________ To sanitize food contact surfaces of an electric meat slicer that cannot be removed
   A. power spray for 2 to 3 minutes with a double strength sanitizing solution while the machine is operating.
   B. unplug machine and wipe food contact surfaces with a cloth dipped in a double-strength solution of chemical sanitizer.
   C. unplug the machine, pick it up, an immerse food contact surfaces in a double-strength chemical sanitizing solution.
   D. any of the above.

8. ________ Food service workers should avoid touching food contact surfaces of clean dishes and utensils, including
   A. top or sides of plates and bowls.
   B. times of forks, blades of knives, and bowls of spoons.
   C. rims of glasses and cups.
   D. all of the above.

9. ________ To clean hard-surface floors
   A. rinsing is not necessary on a daily basis.
   B. mop along the baseboard first.
   C. finish an area about 9x12 feet before moving to adjacent areas.
   D. add an aseptic to the detergent solution.

10. ________ The best insurance against disease-carrying pests is to
   A. eliminate insect pests before eliminating rodent pests.
   B. store food properly and clean sup spilled food promptly.
   C. use chemical pesticides regularly.
   D. report signs of pests immediately.

CHAPTER 6 TEST
Food Sanitation

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The primary goal of a food service sanitation program is to
   A. follow the time-and -temperature principle.
   B. protect the customer from salmonella infection.
   C. protect the food supply from chemical hazards.
   D. protect the customer from food-borne illness.

2. ________ Most cases of food-borne illness are caused by
   A. biological hazards.
   B. chemical hazards.
   C. physical hazards.
   D. poor inspection procedures.

3. ________ Microorganisms that can be transported by food but do not increase in number while in food are
   A. yeasts.
   B. molds.
   C. viruses.
   D. bacteria.

4. ________ Acidic foods should not be prepared or stored in
   A. ceramic containers.
   B. copper containers.
   C. aluminium containers.
   D. Teflon containers.

5. ________ Microorganisms thrive best in
   A. a moist environment.
   B. a warm environment.
   C. a neutral or slightly acid environment.
   D. all of he above.

6. ________ The four types of micrograms which affect food are
   A. infections, viruses, toxins, and bacteria.
   B. bavteria, viruses, yeasts, and molds
   C. toxins, bacteria, molds, and viruses.
   D. influenza, molds, bacteria, and viruses.

7. ________ One way to help avoid bacterial contamination is to defrost frozen foods
   A. under hot running water.
   B. in a conventional oven at low temperature.
   C. under refrigeration.
   D. at room temperature.

8. ________ The food from the meat group that should be cooked to the highest internal temperature is
A. pork.
B. poultry.
C. beef
D. legumes.

9. ________ The time-and-temperature principle requires that all potentially hazardous food during display and service be kept at an internal temperature
A. below 32°F or above 110°F.
B. below 72°F or above 212°F.
C. below 60°F or above 80°F.
D. below 45° or above 140°F.

10. ________ In managing leftover foods
A. wrap hot foods immediately and place in refrigerator.
B. discard custards, puddings, and creamed casseroles.
C. choose storage containers that will allow minimum food surface area.
D. all of the above.

CHAPTER 7 TEST
Nutrition

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The energy value of food is expressed in
   A. nutrients.
   B. hormones.
   C. enzymes.
   D. calories.

2. ________ Protein is necessary for
   A. amino acid development.
   B. regulating body processes and preventing common diseases.
   C. growth, repair, and maintenance of the body.
   D. providing bulk to aid in digestion.

3. ________ Sugar, starch, and cellulose are
   A. collagen compounds.
   B. carbohydrates.
   C. minerals.
   D. glycerol compounds.

4. ________ The nutrient that provides the most energy per gram is
   A. fat.
   B. carbohydrates.
   C. vitamins.
   D. protein.

5. ________ Cholesterol is found in foods high in
   A. fat-soluble vitamins.
   B. polyunsaturated fat.
   C. animal fat.
   D. incomplete protein.

6. ________ The fat-soluble vitamins are
   A. sodium, chloride, and potassium.
   B. B, B_2, and C.
   C. thiamine, riboflavin, and niacin.
   D. A, D, E, and K.

7. ________ Liver is a good source of
   A. B vitamins.
   B. vitamin C.
   C. vitamin D.
   D. starch.

8. ________ Calcium and phosphorus work together to build
    A. trace minerals.
    B. bones and teeth.
    C. vitamin D.
    D. blood cells.

9. ________ Foods rich in vitamin C include
    A. citrus fruits.
    B. milk products.
    C. breads and cereals.
    D. all of the above.

10. ________ Foods rich in iron include
    A. fresh fruits.
    B. egg yolks.
    C. milk.
    D. all of the above.

11. ________ In the Daily Food Guide, peanut butter is part of the
    A. vegetable and fruit group.
    B. fats, sweets, and alcohol group.
    C. meat and legumes group.
    D. bread and cereal group.

12. ________ Which of the following is not one of the USDA dietary guidelines?
    A. Avoid too much starch and fiber.
    B. Avoid too much fat, saturated fat, and cholesterol.
    C. Avoid too much sodium.
    D. Eat a variety of foods.

13. ________ Spaghetti and lasagna are foods which are part of the
    A. New England culture.
    B. Mexican culture.
    C. Texas culture.
    D. Italian culture.

14. ________ Compared with adolescents, adults have a lower need for
   A. protein.
   B. calcium.
   C. calories.
   D. all of the above.

15. ________ Lunch should
   A. be skipped by persons on a diet.
   B. include one serving from each of the basic four food groups.
   C. be the heaviest meal of the day.
   D. include two dishes plus a dessert and a beverage.

CHAPTER 8 TEST
Special Diets

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Cycle menus
   A. cover a period of six months to a year.
   B. save time in menu planning.
   C. are used in schools but not in hospitals.
   D. are the responsibility of entry-level dietary aides.

2. ________ Young children usually like
   A. crunchy foods.
   B. foods they can hold.
   C. foods from their culture.
   D. all of the above.

3. ________ Texas minimum standards for child care centers require that food serve a child cared for from five to nine hours a day meet at least
   A. one-fourth of the child's daily food needs.
   B. one-third of the child's daily food needs.
   C. one-half of the child's daily food needs.
   D. the calorie requirements for one meal.

4. ________ Foods listed in the School Lunch and Breakfast Patterns are taken from the
   A. nutrient list.
   B. Guidelines for Health Care Facilities.
   C. Daily Food Guide.
   D. Seven Dietary Guidelines for Americans.

5. ________ Dining room service in nursing homes helps residents
   A. show an interest in their personal appearance.
   B. improve their appetites.
   C. improve their morale and sociability.
   D. all of the above.

6. ________ A therapeutic diet is ordered by a
   A. doctor.
   B. dietician.
   C. floor supervisor.
   D. any of the above.

7. ________ A soft diet could include
   A. dry cereal, hot bread, apple slices.
   B. soft fried eggs, tender meat, toasted white bread.
   C. gelatin, broth, apple juice.
   D. broiled steak, raw vegetables, fresh orange slices.

8. ________ An exchange list allows
   A. meat to be exchanged for fruit.
   B. cooked cereals to be exchanged for raw vegetables.
   C. carbohydrate foods to be exchanged for protein foods.
   D. bread to be exchanged for cooked cereal or mashed potato.

9. ________ On a sodium restricted diet, the following foods should be avoided:
   A. raw carrots, broccoli, and cauliflower.
   B. milk, cheese, and yogurt.
   C. bacon, ham, olives, potato chips.
   D. oatmeal, bread, and pasta.

10. ________ Extra nourishments suitable for the hospital patient on a general diet could include
   A. fruit juice and a wafer.
   B. hamburger and French fries.
   C. candy and nuts.
   D. chicken bits.

CHAPTER 9 TEST
Tools and Utensils

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Utensils are
   A. used for measuring ingredients.
   B. container for holding food.
   C. hand-held equipment such as knives.
   D. all of the above.

2. ________ Tools for measuring dry ingredients should have
   A. a pouring lip or spout.
   B. a rim above the "full cup" line.
   C. graduated measurements marked for ounces.
   D. no rim or pouring spout.

3. ________ To measure brown sugar
   A. sift before measuring.
   B. pack when measuring.
   C. heat before measuring.
   D. crumble loosely before measuring.

4. ________ They type of thermometer used to check the internal temperature of large pieces of meat or poultry is the
   A. probe-type thermometer.
   B. dial-type thermometer.
   C. thermostat.
   D. fat thermometer.

5. ________ The type of knife to use for disjointing fowl or separating meat from the bone is the
   A. cleaver.
   B. paring knife.
   C. boning knife.
   D. French knife.

6. ________ Wooden cutting boards are not used in food service establishments because they are
   A. too expensive.
   B. less attractive than other types.
   C. non porous.
   D. less sanitary than other types.

7. ________ Ladles are used for
   - A. transferring foods from one container to another.
   - B. lifting soups, gravies, and sauces.
   - C. portioning foods.
   - D. all of the above.

8. ________ A utensil used to drain cooked foods like pasta is a
   - A. colander.
   - B. China cap.
   - C. stock pot.
   - D. strainer.

9. ________ A large cooking utensil with straight sides, a handle on each side, and a cover is a
   - A. saute pan.
   - B. stock pot.
   - C. sauce pan.
   - D. braiser

10. ________ A samovar
   - A. is an au gratin dish.
   - B. is placed under utensils for heating.
   - C. dispenses hot liquids.
   - D. keeps meat out of the juices in a roasting pan.

CHAPTER 10 TEST
Food Preparation Equipment

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The balance scale is used for
A. scaling dough for uniform-sized loaves.
B. weighing dry ingredients such as beans, cheese , and fruits.
C. weighing portions of food and rolls.
D. weighing batters and mixes.

2. ________ The part of the can opener which comes in contact with food and should wiped clean after each use is the
A. handle.
B. blade.
C. base.
D. shank.

3. ________ To clean a food slicer
A. unplug the machine.
B. wash removable parts in a hot detergent solution.
C. wipe machine surfaces with a clean cloth dampened in a detergent solution.
D. all of the above.

4. ________ In commercial food mixers, the wire whip is used for
A. heavy doughs.
B. combining shortening and flour.
C. incorporating air into light mixtures.
D. general mixing.

5. ________ Use a pusher to push the food through when using
A. a meat and food shopper.
B. a food processor.
C. both of the above.
D. none of the above.

6. ________ An urn is a coffee container with a
A. handle.
B. faucet.
C. decanter.
D. steamer.

7. ________ To prevent bacterial growth, the type of dispenser that must be thoroughly cleaned daily dispenses
A. syrups and toppings.
B. soft drinks.
C. dairy products.
D. tea.

8. ________ An exhaust hood should be placed over
   A. range tops, grills, broilers, deep-fat fryers.
   B. compartment steamers, convection steamers, steam-jacketed kettles.
   C. stack ovens, convection ovens, carousel ovens.
   D. all of the above

9. ________ In steamers, as the pressure increases the
   A. food cooks more slowly.
   B. gauge records the internal temperature.
   C. temperature decreases.
   D. temperature increases.

10. ________ A convection oven differs from regular oven in that
   A. a fan forces hot air through the oven.
   B. the oven has revolving trays to hold the food.
   C. the oven is brick-lined to hold the heat.
   D. the oven is a combination microwave/conventional oven.

CHAPTER 11 TEST
Cold Storage, Serving, and Cleaning Equipment

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The foods that require the lowest refrigeration temperature are
   A. dairy products.
   B. raw fruits and vegetables.
   C. meat, poultry, fish, and cooked food.
   D. cereal products.

2. ________ All items placed in the freezer should be wrapped to prevent
   A. temperature fluctuation.
   B. spoilage.
   C. hydration.
   D. freezer burn.

3. ________ A substance that helps prevent odors in refrigerators and freezers is
   A. baking soda.
   B. baking powder.
   C. salt.
   D. cream of tartar.

4. ________ A deep pot for holding hot water with another pot holding food placed inside to keep warm is a(n)
   A. steam table.
   B. infrared warmer.
   C. bain-marie.
   D. rollwarmer.

5. ________ A refrigerated cabinet with shelves for salad storage is a(n)
   A. ice-bain marie.
   B. salad case.
   C. mobile refrigerator.
   D. cold cart.

6. ________ In general, holding and serving equipment should be cleaned
   A. after each use.
   B. before each use.
   C. daily.
   D. monthly.

7. ________ In commercial food establishments, pots and pans are usually washed in a
   A. two compartment sink, with one compartment for washing, one for rinsing.
   B. three compartment sink, with compartments for washing, rinsing and sanitizing.
   C. single tank commercial dishwasher.
   D. flight-type commercial dishwasher.

8. ________ For proper thermal sanitizing in a commercial dishwashing machine, the final rinse should be at a minimum temperature of
A. 200°F
B. 180°F
C. 160°F
D. 140°F

9. ________ After the grinding action of a garbage disposer is complete, allow the disposer to run at least
A. one minute longer.
B. two minutes longer.
C. three minutes longer.
D. five minutes longer.

10. ________ The work flow in a food service work station is usually
A. determined by access to the dishwashing area.
B. determined by the floor plan.
C. from right-to-left.
D. from left-to-right

CHAPTER 12 TEST
Food and Supplies

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The form used for ordering food and supplies is a(n)
   A. ledger.
   B. accounting record.
   C. shipping ticket.
   D. purchase order.

2. ________ Standards for the wholesomeness of food are established by
   A. the U.S. Department of Agriculture (USDA).
   B. the Food and Drug Administration (FDA).
   C. state and local governments.
   D. all of the above.

3. ________ Nutrition labeling is required on
   A. all foods.
   B. all canned and frozen foods.
   C. foods with nutrients added or for which nutritional claims are made.
   D. foods that do not provide a least 50 percent of U.S. RDA.

4. ________ The best listing of a needed product on a requisition form would be
   A. three No. 10 cans of French-cut green beans.
   B. three cans green beans.
   C. French cut beans.
   D. No. 10 can green beans with peppers.

5. ________ In "blind receiving," the receiving clerk
   A. receives no information about what has been ordered and must count or weigh every item delivered.
   B. accepts the items delivered, signs the delivery ticket, and checks the accuracy of the delivery later.
   C. checks the total weight of the delivery without continuing or checking weights of individual items.
   D. none of the above.

6. ________ Unfrozen meat should be delivered at
   A. 70°F or below.
   B. 48°F or below.
   C. 40°F or below.
   D. 32°F or below.

7. ________ Foods should be used on a
A. check in, check out basis.
B. first come, first serve basis.
C. last date, first date basis.
D. first in, first out basis.

8. ________ Most freezers used in food service establishments
A. are designed for storing only already-frozen foods.
B. are capable of processing unfrozen foods.
C. are called plate freezers.
D. maintain an air temperature between 0°F and +10°F.

9. ________ Dry storage areas should
A. be air-tight.
B. have relative humidity below 30 percent.
C. be well ventilated.
D. have maximum temperatures from 72°F-80°F.

10. ________ To take a physical inventory
A. call out items in order on the shelf and record them on the inventory sheet.
B. call out items on the inventory sheet and locate them on the shelf.
C. work alone so you won't be disturbed.
D tabulate written records of food and supplies delivered and issued.

CHAPTER 13 TEST
Food Preparation Techniques

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The item which is not pat of a standard recipe is
   A. cooking methods, temperatures, and time.
   B. yield in cups, quarts, or gallons.
   C. amount of ingredients in order of weight or volume.
   D. all of the above.

2. ________ The standard substitution for 1 teaspoon baking powder is
   A. 1 t. cream of tartar.
   B. 1/4 t. salt and 1/2 t. cornstarch.
   C. 1/2 t. cornstarch and 1/2 t. soda.
   D. 1/4 t. soda and 1/2 t. cream of tartar.

3. ________ A 32 oz. can yields approximately
   A. 4 cups.
   B. 3 1/2 cups.
   C. 3 cups.
   D. 2 1/2 cups.

4. ________ If the recipe you plan to use yields 50 servings, but you want to serve 75 persons, increase each ingredient by
   A. 200 percent.
   B. 175 percent.
   C. 150 percent.
   D. 133 percent.

5. ________ To increase or decrease recipes whose measures are expressed in pounds, cups, and tablespoons, first convert each measure in the recipe to
   A. the next largest unit.
   B. the next smallest unit.
   C. metric measures.
   D. percentages.

6. ________ Dry heat cooking methods include
   A. sauteing, broiling, and pressure cooking.
   B. braising, griddle frying, and roasting.
   C. baking, roasting, and broiling.
   D. any combination of the above.

7. ________ Paprika is a(n)
   A. condiment.
   B. herb.
   C. extract.
   D. spice.

8. ________ Convenience foods may save
   A. cost.
   B. production time.
   C. food waste.
   D. all of the above.

9. ________ To determine the time to begin preparation of a food
   A. plan ahead step by step to serving time.
   B. plan back step by step from serving item.
   C. let each worker develop a production schedule.
   D. let workers sign up for use of equipment.

10. ________ Standard portions
   A. ensure that everyone gets the same serving size.
   B. are in approximate proportion to the weight of the customer.
   C. apply only to entrees and desserts.
   D. depend on the size of the serving plate.

CHAPTER 14 TEST
Beverages

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ A glass, glass should never be dipped into an ice machine to fill because
   A. heat from the glass will melt the ice it touches.
   B. glasses are rarely sanitary.
   C. an ice scoop is more efficient.
   D. teh glass could chip or break in the ice.

2. ________ Because Americans drink more coffee than any other beverage, the quality and quantity of coffee served often influences\
   A. sanitation inspection standards.
   B. teh variety of other beverages served.
   C. judgments of the food service establishment.
   D. whether or not ice water is served.

3. ________ In making brewed coffee, if the ground coffee is too fine, the coffee will be
   A. murky.
   B. weak.
   C. strong.
   D. bitter.

4. ________ Coffee makers should be cleaned after each use because
   A. bacteria develop rapidly in coffee.
   B. coffee contains an oil that collects on surfaces and leaves a bitter taste.
   C. the activated charcoal forms a sediment.
   D. hard water sediments collect inside the coffee maker and plug the spout.

5. ________ Make coffee frequently and in small amounts because
   A. less electricity is needed.
   B. the coffee grounds can be reused.
   C. the coffee will stay hotter.
   D. the flavor and fragrance deteriorates.

6. ________ For making hot tea, loose tea or tea bags should first be placed in water that is
   A. lukewarm.
   B. boiling.
   C. almost-boiling.
   D. room temperature.

7. ________ Skim milk
   A. contains no butterfat.
   B. contains less than 1 percent butterfat.
   C. is used in chocolate milk.
   D. has flecks of butter throughout.

8. ________ When serving milk shakes, fill the cup
   A. to near overflowing, unless it is "to go."
   B. three-fourhts full.
   C. to within one half inch of the top.
   D. only to the fill line.

9. ________ Combinations of fruit juices are usually called
   A. punch.
   B. fruit cocktails.
   C. appetizers.
   D. breakfast beverages.

10. ________ To reduce foaming when dispensing carbonated soft drinks
   A. fill the cup with ice.
   B. use a chilled cup.
   C. tilt the cup when dispensing.
   D. all of the above.

CHAPTER 15 TEST
Cold Sandwiches

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ A type of sandwich with only one slice of bread is a(n)
   - A. open-faced.
   - B. tea.
   - C. club.
   - D. regular.

2. ________ The sandwich that is not made with specialty bread is
   - A. croissant.
   - B. submarine.
   - C. decker.
   - D. pocket.

3. ________ The bread that is not a yeast bread is
   - A. rye.
   - B. croissant.
   - C. hot dog bun.
   - D. Boston brown.

4. ________ Bread used for cold sandwiches should be refrigerated for 24 hours because it will
   - A. be easier to spread.
   - B. not be stale.
   - C. absorb the spread more easily.
   - D. all of the above.

5. ________ The best spread for sandwiches made in advance of serving is
   - A. catsup.
   - B. mayonnaise.
   - C. butter or margarine.
   - D. mustard.

6. ________ The filling that requires special precautions to prevent salmonella contamination is
   - A. tuna salad.
   - B. ham and cheese.
   - C. sliced cheese.
   - D. thin-sliced chicken.

7. ________ The sandwich ingredient that needs to be removed from the refrigerator in advance of cold sandwich preparation in order to soften is
A. garnish.
B. bread.
C. filling.
D. butter.

8. ________ For efficiency (right-handed worker) when preparing sandwiches
A. learn to do most tasks using the left hand.
B. alternate right and left hands for identical tasks.
C. work from right to left.
D. use both hands whenever possible.

9. ________ The item that is not a garnish for a sandwich is
A. carrot curls.
B. French fries.
C. parsley sprigs.
D. stuffed sliced olives.

10. ________ To hold sandwiches for later serving
A. wrap or cover with moisture-proof wrapping.
B. label for easy identification.
C. refrigerate with wrapping in place.
D. all of the above.

CHAPTER 16 TEST
Salads

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. _________ The item below that is not a type of salad is
   A. molded.
   B. combination.
   C. marinade.
   D. arranged.

2. _________ Menu uses of salad include
   A. dessert, accompaniment, and entree.
   B. dessert, entree, and appetizer.
   C. appetizer, entree, and accompaniment.
   D. all of the above.

3. _________ The three basic types of salad dressing are
   A. French, mayonnaise, and cooked.
   B. Italian, Russian, and Greek.
   C. thin, smooth, and thick.
   D. fresh, reconstituted, and cooked.

4. _________ Cooked dressings are thickened with
   A. an oil emulsion or cheese.
   B. mayonnaise or mustard.
   C. dried potato flakes or pasta.
   D. egg, cornstarch, or flour.

5. _________ Salad ingredients may be
   A. greens, fruits, vegetables.
   B. frozen, freeze-dried, some leftover foods.
   C. meat, poultry, fish, eggs, cheese.
   D. all of the above.

6. _________ To prepare salad greens
   A. rinse quickly in warm water, then in cold.
   B. crisp in the freezer for 15 minutes.
   C. handle gently to prevent bruising.
   D. cut with a carbon steel knife.

7. _________ To prepare molded salads
   A. dissolve gelatin in a hot liquid.
   B. add solid ingredients when the gelatin is lukewarm.
   C. avoid quick congealing methods that use ice.
   D. unmold at least 2 hours before serving.

8. ________ The salad most subject to bacterial contamination is made of
   A. gelatin and raw vegetables.
   B. protein foods and mayonnaise.
   C. tossed salad greens with oil and vinegar.
   D. fruit slices and lettuce leaf.

9. ________ A suitable topping for a tossed green salad is
   A. oil and vinegar.
   B. croutons.
   C. gelatin cubes.
   D. all of the above.

10. ________ Very cold temerpatures may cause salad dressigs to
   A. become rancid.
   B. become bitter tasting.
   C. separate or become cloudy.
   D. spoil when returened to room temeprature.

CHAPTER 17 TEST
Appetizers

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The item below that is not an appetizer is
   - A. soup.
   - B. cocktail.
   - C. entree.
   - D. relish.

2. ________ A type of appetizer that is an open-faced sandwich is
   - A. aspic.
   - B. canape.
   - C. consomme.
   - D. quiche.

3. ________ Ham and cream cheese rolls would be a(n)
   - A. hor d'oeuvre.
   - B. base.
   - C. canape.
   - D. croquette.

4. ________ The purpose of an appetizer is to
   - A. dull the appetite before a meal.
   - B. stimulate the appetite before a meal.
   - C. give the cook more time to prepare the meal.
   - D. provide food to eat with beverage cocktails before a meal.

5. ________ The spread for a canape is usually based on
   - A. cream cheese.
   - B. aspic.
   - C. mustard or catsup.
   - D. butter or margarine.

6. ________ An appropriate appetizer salad is made of
   - A. seafoods.
   - B. tart fruits.
   - C. salad greens.
   - D. all of the above.

7. ________ Hor d'oeuvres should be served
   - A. hot or cold.
   - B. at room temperature.
   - C. frozen.
   - D. lukewarm.

8. ________ An appropriate garnish for a fruit beverage cocktail is
   A. shrimp.
   B. relish.
   C. mint.
   D. all of the above.

9. ________ Appetizers, as well as other foods, should be prepared, served, and stored outside the temperature danger zone of
   A. 40° to 140°F.
   B. 72° to 100°F.
   C. 90° to 100°F.
   D. 55° to 170°F.

10. ________ For right-handed workers, the work flow for an assembly line for preparing appetizers should be from
   A. left to right.
   B. right to left.
   C. hot foods to cold foods.
   D. cold foods to hot foods.

CHAPTER 18 TEST
Soups and Sauces

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The first step in making stock from scratch is to
A. boil vegetables, herbs, and spices.
B. simmer meat, fish, or poultry scraps.
C. bring a protein food, an acid food, and vegetables to a boil.
D. brown scraps of meat in the oven.

2. ________ The type of stock made from raw bones and scraps of veal or chicken is
A. poultry stock.
B. fish stock.
C. white stock.
D. brown stock.

3. ________ Roux, used to thicken certain soups, consists of
A. rice or barley.
B. potatoes or noodles.
C. milk or flour.
D. fat and flour.

4. ________ A hearty soup suitable for a main dish is
A. puree.
B. consomme.
C. cream soup.
D. gazpacho.

5. ________ Cream soups are made from
A. beef stock.
B. a milk base.
C. a broth base.
D. poultry stock.

6. ________ A soup made in a double boiler to prevent scorching is
A. cream soup.
B. puree.
C. minestrone.
D. bouillon.

7. ________ A garnish that would not be appropriate for a hot soup is
A. grated cheese.
B. croutons.
C. whipped cream.
D. parsley.

8. ________ Hollandaise sauce is a(n)
A. egg sauce.
B. white sauce.
C. butter sauce.
D. brown sauce.

9. ________ Cooked fruit sauces are thickened with
A. flour.
B. roux.
C. cornstarch.
D. eggs.

10.. ________ The soups and sauces that spoil most quickly are made from
A. a tomato and spice base.
B. a fruit and sweetener base.
C. a butter and flour base.
D. a milk and egg base.

CHAPTER 19 TEST
Meat, Poultry, and Fish

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ An entree is
   - A. an accompaniment.
   - B. the dressier course.
   - C. the appetizer.
   - D. the main course.

2. ________ Less tender cuts of beef include
   - A. loin and rib.
   - B. sweetbreads and liver.
   - C. round and flank.
   - D. porterhouse and club.

3. ________ The item that is not a type of poultry is
   - A. capon.
   - B. trussing.
   - C. broiler.
   - D. roaster.

4. ________ Freshwater finfish include
   - A. haddock, whiting, halibut.
   - B. whitefish, brook, trout, catfish.
   - C. crayfish, crabs, shrimp.
   - D. all of the above.

5. ________ The product that is less likely to be sold in a cured form is
   - A. pork.
   - B. beef.
   - C. fish.
   - D. poultry.

6. ________ Quality beef will
   - A. have white, hard bones with a little red in the center.
   - B. be bright red in color.
   - C. have firm white fat on the outside with marbling throughout.
   - D. all of the above

7. ________ The highest quality USDA grade of poultry is designated by the letter
   - A. A.
   - B. B.
   - C. C.
   - D. D.

8. ________ A distinguishing quality of fresh finfish is
A. loose flesh.
B. light pink gills.
C. bulging clear eyes.
D. all of the above.

9. ________ A storage principle that applies to meat, poultry, and fish is
A. store unopened canned products in the refrigerator.
B. do not refreeze after thawing.
C. use fresh products stored in the refrigerator within three days.
D. all of the above.

10. ________ The most tender cuts of beef have bones that are
A. long, round, curved.
B. curved, T-shaped, or round.
C. T-shaped, long, or curved.
D. round, long, T-shaped.

11. ________ Pork should always be cooked to well-done (internal temperature of 165°F) to prevent a disease called
A. salmonella.
B. trichinosis.
C. staphylococcus.
D. botulism.

12. ________ The product that requires the least cooking time is
A. fish.
B. poultry.
C. beef.
D. lamb.

13. ________ An appropriate cooking method for older, less tender, poultry is
A. roasting.
B. braising.
C. broiling.
D. frying.

14. ________ Lean finfish are best prepared by
A. boiling, simmering, or smoking.
B. steaming, sauteing, or deep-frying.
C. broiling, barbecuing, baking.
D. stewing, fricasseeing, or pan-frying.

15. ________ A convenience form of meat, poultry, and fish is
A. preportioned.
B. canned.
C. frozen.
D. all of the above.

CHAPTER 20 TEST
Eggs and Cheese

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Most recipes are developed to use
A. small or medium eggs.
B. medium or large eggs.
C. large or extra large eggs.
D. extra large jumbo eggs.

2. ________ Lower grade eggs have
A. a darker color shell.
B. more egg white.
C. a rounder yolk.
D. more air space.

3. ________ High temperatures and overcooking causes the protein in eggs to
A. discolor.
B. curdle.
C. toughen.
D. all of the above.

4. ________ Eggs cooked in the shell should be
A. simmered.
B. boiled.
C. hard-boiled.
D. boiled then simmered.

5. ________ In mayonnaise, eggs are used as a(n)
A. binder.
B. clarifier.
C. emulsifier.
D. thickener.

6. ________ The form of egg most suitable as a garnish is a(n)
A. omelet.
B. hard-cooked eggs.
C. scrambled eggs.
D. oven-fried eggs.

7. ________ Eggs may be purchased
A. fresh, frozen, or dried.
B. whole, whites only, or yolks only.
C. in liquid, solid, or powder form.
D. all of the above.

8. ________ The most suitable garnish for an omelet is
A. parsley and pimento.
B. cream cheese and sweet cherries.
C. shredded cabbage and carrot curls.
D. cinnamon and whole cloves.

9. ________ Most egg dishes
A. can be frozen and reheated without loss of quality.
B. can be stored in the refrigerator for up to one week.
C. should be served immediately.
D. can be held on a steam table for 2-3 hours without loss of quality.

10. ________ A popular semihard cheese is
A. Parmesan.
B. blue.
C. cheddar.
D. mozzarella.

11. ________ A cheese that melts easily without curdling is
A. cottage.
B. brick.
C. Swiss.
D. process.

12. ________ The USDA inspection shield on cheese ensures that the cheese is of good quality and
A. was produced under sanitary conditions.
B. has good texture.
C. has good flavor.
D. all of the above.

13. ________ Cheese may be used as a(n)
   - A. main dish.
   - B. garnish.
   - C. appetizer.
   - D. all of the above.

14. ________ Cheese should be cooked at a
   - A. high temperature for a short time.
   - B. low temperature for a short time.
   - C. high temperature for a long time.
   - D. low temperature for a long time.

15. ________ Which of the following is true about storage of cheese and cheese dishes?
   - A. Hard cheeses spoil more quickly than soft cheeses.
   - B. Cheese dishes can be stored and reheated successfully.
   - C. The butterfat in cheese melts at room temperature.
   - D. All of the above

CHAPTER 21 TEST
Cereals and Pastas

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Cereals and pastas are made from
   - A. wheat, corn, and oats.
   - B. rice, barely, and corn.
   - C. oats, rye, and buckwheat.
   - D. all of the above.

2. ________ In regard to cereal grain products, whole grain means the same as
   - A. unrefined.
   - B. enriched.
   - C. fortified.
   - D. converted.

3. ________ Polished or white rice
   - A. has had only the hull removed in processing.
   - B. has been treated to retain the nutrients.
   - C. is not actually rice but the seed of a wild grass.
   - D. is the endosperm of the rice kernel.

4. ________ Lasagna is a pasta in the shape of
   - A. shells.
   - B. rods.
   - C. ribbon-like strips.
   - D. tubes.

5. ________ Convenience cereals that require only the addition of boiling water or milk are classified as
   - A. pre-cooked.
   - B. instant.
   - C. ready-to-eat.
   - D. converted.

6. ________ Grain products are suitable for which part(s) of a meal?
   - A. salad.
   - B. entree.
   - C. dessert.
   - D. all of the above

7. ________ Which of the following does not happen as cereals and pastas cook?
   A. The starch in the products changes color.
   B. The starch in the products absorbs water.
   C. Steam erupts the starch granules.
   D. The starch gelantinizes or thickens.

8. ________ Excessive stirring during the cooking of cereals and pastas causes the products to become
   A. tough.
   B. watery.
   C. sticky.
   D. all of the above.

9. ________ To prevent lumping of cereal granules during cooking
   A. stir the granules into a small amount of hot tap water before adding to boiling water.
   B. pour the granules slowly into boiling water while stirring.
   C. add all the granules at once to boiling water and then stir.
   D. add the granules to cold water and bring to a boil.

10. ________ In general, hot cereals and pastas should be
   A. prepared as close to serving time as possible.
   B. left uncovered to release excess moisture.
   C. served hot or cold depending on season.
   D. all of the above.

CHAPTER 22 TEST
Vegetables and Fruits

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Examples of pomes and drupes are
   A. potatoes and cabbage.
   B. apples and peaches.
   C. corn and cucumber.
   D. oranges and avocados.

2. ________ A flat is
   A. a large, oblong box separated into two sections.
   B. used for packing potatoes and onions.
   C. a large heavy cardboard box wrapped or unwrapped fruits and vegetables.
   D. a carton which holds twelve baskets of small fruits or vegetables.

3. ________ Fruits are used in (as)
   A. accompaniments, salads, snacks.
   B. soups, breads, beverages.
   C. desserts, appetizers, garnishes.
   D. all of the above.

4. ________ Pare fruits and vegetables thinly because
   A. the flavor-producing parts are concentrated under the skin.
   B. thin skins are best for deep-fat frying.
   C. vitamins and minerals are concentrated under the skin.
   D. all of the above.

5. ________ A vegetable in julienne form has been
   A. shredded.
   B. diced.
   C. minced.
   D. sliced.

6. ________ Cook fresh vegetables and fruits in as little water as possible, for
   A. less than 10 minutes.
   B. more than 10 minutes.
   C. as short a time as possible.
   D. as long a time as possible.

7. ________ When fruits are cooked with sugar, they will
   A. lose their shape.
   B. retain their shape.
   C. lose their color.
   D. retain their color.

8. ________ Stir-frying is a type of
   A. free steaming.
   B. scalloping.
   C. deep-fat frying.
   D. sauteing.

9. ________ Appropriates garnishes for most vegetables are
   A. fruits of contrasting colors.
   B. shaved chocolate, maraschino cherries, strawberries.
   C. almonds, pearl onions, buttered bread crumbs.
   D. all of the above.

10. ________ Fresh fruits which darken after cutting should be treated with
   A. ascorbic acid or lemon juice.
   B. slat or baking soda.
   C. saccharin or other sweetener.
   D. any of the above.

CHAPTER 23 TESTS
Breads

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Quick breads include
   A. doughnuts, Danish pastries, and coffee cakes.
   B. biscuits, doughnuts, and popovers.
   C. muffins, cornbread, and waffles.
   D. pancakes, dough nuts, and sweet rolls.

2. ________ Gluten forms the elastic framework in breads made from
   A. white flour.
   B. hard wheat flour.
   C. all-purpose flour.
   D. all of the above.

3. ________ As an ingredient in yeast bread, salt
   A. improves the flavor.
   B. keeps the gluten from becoming tough.
   C. speeds up the action of the yeast.
   D. all of the above.

4. ________ The base of pizza is made of
   A. quick bread dough.
   B. yeast bread dough.
   C. either quick bread or yeast bread dough.
   D. neither quick bread nor yeast bread dough.

5. ________ In the muffin method of preparing quick breads
   A. dry ingredients and liquid ingredients are mixed separately, then combined.
   B. the mixture is stirred just enough to moisten the dry ingredients.
   C. the batter should appear lumpy.
   D. all of the above.

6. ________ In the biscuit method of preparing quick breads
   A. a pastry blender is used to cut the fat into the flour mixture.
   B. the batter is stirred until all the flour is moistened.
   C. the cut pieces are baked in greased biscuit tins.
   D. all of the above.

7. ________ The most popular method for making yeast breads in food service establish ments is the
   A. sponge-dough method.
   B. straight-dough method.
   C. kneading method.
   D. batter method.

8. ________ Convenience bread products available to food service establishments include
   A. fresh yeast and dried yeast.
   B. fermenting and proofing agents.
   C. crescent roll and Danish pastry cutters.
   D. biscuit mixes and canned biscuits.

9. ________ Breads served at the table are covered with a napkin to
   A. retain flavor.
   B. prevent hydration.
   C. retain warmth.
   D. prevent contamination.

10. ________ To hold and store breads
   A. cool and wrap in an air-tight moisture-proof container.
   B. wrap hot bread in a damp, clean towel.
   C. cook until warm, wrap loosely , and store in refrigerator.
   D. keep in freezer for no longer than two weeks.

CHAPTER 24 TEST
Desserts and Cookies

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ A type of fruit dessert is a(n)
   A. trifle.
   B. souffle.
   C. betty.
   D. baked Alaska.

2. ________ A convenience dessert product used by many food service establishments is
   A. cookies from a bakery.
   B. commercially prepared ice cream.
   C. whipped topping in a pressurized can.
   D. all of the above.

3. ________ A mousse is made by
   A. freezing a Bavarian cream.
   B. baking a soft custard.
   C. beating egg white into a gelatin cream.
   D. thickening a charlotte with eggs.

4. ________ A dessert appropriately served in a tall clear glass is a
   A. souffle.
   B. Spanish flan.
   C. fruit compote.
   D. baked custard.

5. ________ After preparation, puddings and custards should be
   A. served piping hot.
   B. refrigerated immediately.
   C. allowed to cool at room temperature.
   D. placed immediately in the freezer to cool.

6. ________ A semi-soft dough is used for
   A. bar cookies.
   B. rolled cookies.
   C. drop cookies.
   D. all of the above.

7. ________ To prepare refrigerator cookies,
A. choose a recipe with a high proportion of shortening.
B. wrap and chill the dough in long rolls
C. slice chilled dough and place on baking sheets.
D. all of the above.

8. ________ When being iced, cookies should be
A. cool.
B. warm.
C. spread with an egg wash.
D. rolled in powdered sugar.

9. ________ Bar cookies are appropriately served
A. a la mode.
B. with a sauce.
C. on a doily.
D. all of the above.

10. ________ A 12 x 20 inch pan of bar cookies yields
A. 48 2 x 2 1/2 inch cookies.
B. 60 3 1/2 x 2 inch cookies.
C. 96 2 x 2 inch cookies.
D. 128 1 x 3 inch cookies.

CHAPTER 25 TEST
Cakes and Icings

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Foam cakes differ from shortened cakes in that
   - A. foam cakes usually do not contain shortening.
   - B. shortened cakes usually do not use an egg foam.
   - C. they are different in appearance, texture, and flavor.
   - D. all of the above.

2. ________ White cakes are white because
   - A. no eggs are used.
   - B. only the egg whites are used.
   - C. baking powder is used.
   - D. cream or tartar is used.

3. ________ Cakes are used for
   - A. snacks, appetizers, entrees.
   - B. accompaniments, garnishees, toppings.
   - C. desserts, snacks, and special occasions.
   - D. all of the above.

4. ________ A master cake mix has all the following except
   - A. flour, chemical leavener, salt.
   - B. fat.
   - C. flavoring.
   - D. dry milk.

5. ________ In the creaming method of mixing cakes
   - A. add the eggs to a creamed mixture of shortening and sugar.
   - B. mix the eggs with the milk and flavoring.
   - C. beat the egg whites with cream of tartar and salt.
   - D. add the egg yolks with oil, water, and flavorings.

6. ________ Pans for angel food and chiffon cakes are
   - A. greased on the bottom only.
   - B. greased on the sides only.
   - C. greased on the bottom and sides.
   - D. left ungreased.

7. ________ Shortened cakes should be removed from the pan while they are still warm to
   - A. keep the top from becoming dry.
   - B. keep the bottom from becoming soggy.
   - C. prevent falling.
   - D. cool the cake up-side-down.

8. ________ Icings
   - A. are thick, fluffy, and spreadable.
   - B. can also be used as fillings.
   - C. are thin and pourable.
   - D. all of the above.

9. ________ Fondant
   - A. is made from boiling sugar, water, and cream of tartar.
   - B. may be used alone as an icing.
   - C. may be used as the base for frostings.
   - D. all of the above.

10. ________ When frosting a layer cake
    - A. frost the top first, then the sides.
    - B. ice it first to make it easier to frost.
    - C. place the first layer top down.
    - D. use a spatula dipped in iced water.

CHAPTER 26 TEST
Pastry and Pies

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Single serving pies are called
   A. crullers.
   B. turnovers.
   C. tarts.
   D. Napoleons.

2. ________ A main dish pastry product is a(n)
   A. eclair.
   B. choux.
   C. cruller.
   D. quiche.

3. ________ A convenience pastry product is
   A. puff paste.
   B. choux paste.
   C. uncooked frozen pie shells.
   D. pastry flour.

4. ________ The type of pastry most often used in food service is
   A. pizza dough.
   B. pie crust.
   C. puff pastry
   D. double-crust.

5. ________ For a flaky pastry crust
   A. mix the shortening and Flour until lumps the size of peas are formed.
   B. mix the shortening and flour to the consistency of cornmeal.
   C. use less shortening than for a less tender crust.
   D. use lukewarm water instead of iced water.

6. ________ The edge of a pie crust is finished by
   A. docking.
   B. fluting.
   C. venting.
   D. washing.

7. ________ Chiffon pie fillings are made by
   A. baking a milk and egg mixture in a single crust shell.
   B. filling a single pie crust with softened ice cream and refreezing.
   C. folding egg whites or whipped cream into a cream or fruit filling.
   D. adding banana, butterscotch, chocolate, or coconut to a custard filling.

8. ________ Compared to whipped cream made from scratch, convenience forms of whipped cream
   A. are less expensive.
   B. remain stable longer.
   C. are easier to mix and/or use.
   D. all of the above.

9. ________ Pastries are best served the day they are made because as pastries are stored
   A. top crusts become flaky.
   B. some fillings will spoil quickly.
   C. bottom crusts become dry and tough.
   D. they should not be refrigerated.

10. ________ In regard to garnishing and serving pastries and pies
   A. pastries with cream, chiffon, or custard fillings are served cold.
   B. rich pastries are usually served a la mode.
   C. deep dish fruit peas are usually served ungarnished.
   D. all of the above.

CHAPTER 27 TEST
Basic Service Skills

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The personality of a food service worker is reflected to customers by
   A. attitude.
   B. action.
   C. personal appearance.
   D. all of the above.

2. ________ Among other listening skills, being a good listener involves
   A. speaking actively.
   B. maintaining eye contact.
   C. avoiding nonverbal expressions.
   D. all of the above.

3. ________ A business customer with a client will likely
   A. want a leisurely meal.
   B. be budget-minded.
   C. ask about caloric levels.
   D. choose a fast food establishment.

4. ________ To effectively handle a guest who complains about the way a food item is prepared
   A. distract the guest with conversation.
   B. ask the guest to leave the establishment.
   C. apologize and exchange the food item without a fuss.
   D. first call the manager.

5. ________ To best please a customer with a small child
   A. provide leisurely service.
   B. bring a newspaper to the customer.
   C. seat the child so the child can see other customers.
   D. with parents permission, provide a cracker for the child.

6. ________ The three most common areas of conflict among food service workers involve
   A. setting tables, bussing tables, resetting tables.
   B. stocking, replenishing, and using the service stand.
   C. bussing tables, replenishing the service stands, choosing work stations.
   D. order pick up, cleanliness of service stands, and gratuties.

7. ________ A menu that features complete meals at set prices is a(n)
A. club menu.
B. table d'hote menu.
C. a la carte menu.
D. standard menu.

8. ________ A rushed guest is indecisive and is looking at several sandwiches. Your restaurant practices selling up. Which menu item do you suggest?
A. today's special, cheeseburger, fries, and small drink for $3.75.
B. grilled cheese and chips for $2.35.
C. today's special (same as A above) a la carte with a salad and large drink for $4.80.
D. several course lobster dinner for $15.75.

9. ________ A descriptive word to use to interest a guest in choosing a vegetable from the menu is
A. succulent.
B. rich.
C. ripe.
D. moist.

10. ________ If a service tray is to be carried on the shoulder, the greatest weight should be
A. near the extended elbow.
B. near the shoulder.
C. at the 3 o'clock position.
D. at the 9 o'clcok position.

CHAPTER 28 TEST
Sidework

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. ________ Responsibilities for sidework duties in food service
A. belong to the manager.
B. belong to the waiters and waitress.
C. belong to the bus personnel.
D. are usually shared by all service personnel.

2. ________ A typical closing duty for food service workers is
A. cleaning side stands and booster stands.
B. cleaning tables, chairs, and other surfaces.
C. washing beverage serving equipment.
D. all of the above.

3. ________ A typical opening duty for a food service worker is
A. setting tables.
B. washing dishes.
C. baking breakfast breads.
D. all of the above.

4. ________ An area in the dining room which contains supplies needed by food service workers is called a
A. pantry.
B. work station.
C. service stand.
D. check-out counter.

5. ________ Items that would not be stored in a side strand are
A. table linens.
B. entrees.
C. condiments.
D. beverages.

6. ________ During serving hours
A. sidework duties are not performed.
B. heavy cleaning is done during slack periods.
C. personal appearance of sidework personnel is important.
D. bus carts should not be used.

7. ________ Dining room personnel may portion food items such as
A. cole slaw.
B. butter.
C. condiments.
D. all of the above.

8. ________ Dishes that are clean but streaked should be
A. wiped with a clean moist cloth.
B. returned to the dish room.
C. stored separately.
D. put in a special cleaning machine.

9. ________ When clearing the table of dirty serviceware
A. stack glasses and coffee ups inside one another.
B. scrape the plates at the table so they can be stacked.
C. separate glassware and flatware in the bus pan.
D. put paper waste between glasses to prevent breakage.

10. ________ When dusting furniture
A. dust low surfaces first.
B. use a 9-inch cloth folded in 3-inch squares.
C. use long straight strokes.
D. do not use a treated dust cloth.

CHAPTER 29 TEST
Styles of Service

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. ________ The style of food service in most fast food units is
   A. trayline service.
   B. buffet service.
   C. seated service.
   D. counter service.

2. ________ A style of seated food service in which the host serves course from the table onto individual plates is
   A. American service.
   B. English service.
   C. French service.
   D. Tussian service.

3. ________ A typical smorgasbord food item is
   A. French pastry.
   B. T-bone steak.
   C. smoked fish.
   D. tossed salad.

4. ________ The major advantage of banquet service is
   A. guests receive individual attention.
   B. guests can make their own food selections.
   C. many guests can be served by few staff members.
   D. that trayline services moves quickly and smoothly.

5. ________ Combination service is appropriate for
   A. breakfast.
   B. lunch.
   C. dinner.
   D. all of the above.

6. ________ A tablecloth should
   A. not extend below the seat of the chairs.
   B. not be used over silencers.
   C. hang longer at the ends of the table.
   D. all of the above.

7. ________ The open corners of a folded napkin should be to the right so the guest can
A. use the left hand to pick up the napkin.
B. avoid disturbing the flatware when picking up the napkin.
C. simply pick up the napkin and unfold it.
D. roll the flatware in the napkin.

8. ________ The glassware that is placed on the right side of the cover above the tip of the knife is the
A. water glass.
B. coffee cup.
C. wine glass.
D. iced tea glass.

9. ________ In seated service, the customers' first impression of their meal is the
A. serving dishes.
B. cover.
C. napkin.
D. place mats.

10. ________ The bread and butter plate is placed
A. directly above the center of the plate.
B. on the right side of the cover to the right of the spoon.
C. on the left side of the cover to the left of the fork.
D. on the left side of the cover directly above the fork.

CHAPTER 30 TEST
Table Service

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. _______ An appropriate guidline for assigning guests to tables is
A. seat noisy guests near quiet guests to balance the dining room.
B. do not ask guests their preferences for table location.
C. place a highchair where it does not interefer with safe passage.
D. all of the above.

2. _______ If the restaurant takes reservations
A. the greeter asks guests if they have reservations.
B. the reservation is called out by microphone when the guests arrive.
C. guests without reservations are turned away.
D. all tables are unassigned.

3. _______ Menus are presentd
A. to guests from the right.
B. to the woman first if the party is a couple.
C. clockwise around the tabel for a group.
D. closed, not open, in very situation.

4. _______ When writing orders
A. use the established abbreviations for the restaurant.
B. find out exactly what each cusotmer wants.
C. use some system for recording the location of the person receving each order.
D. all of the above.

5. _______ When placing an order in the kitchen, do all hte following except
A. communicate clearly and accuarateyl.
B. place orders from several tables at oncce.
C. notify the kitchen which orders on separate check are from the same table.
D. do not check on you order once it is placed.

6. _______ In assembling orders
A. pick up hot foods first, cold foods last.
B. gather accompaniments after the kitchen order is ready.
C. be sure all items are in the right quantitiy and properly cooked.
D. all of the above

7. _______ To serve a booth or banquette, stand at one end and
   - A. serve guests sitting on the outside first and those sitting next to the wall last.
   - B. turn toward the guests on your right and serve them with your right hand.
   - C. turn toward the guests on your right and serve them with your left hand.
   - D. encourgage guests to help you fill glasses and cups.

8. _______ Unless the guest requests otherwise, for breakfast the
   - A. whole order is usally served at once.
   - B. menu items are usually served in courses.
   - C. pace of service is usually leisurely.
   - D. style of service is usually formal.

9. _______ In general, most
   - A. foods are served from the left using the left hand.
   - B. beverages are served from the left using the left hand.
   - C. foods are served from the right using thge right hand.
   - D. beverages are served from the right using the left hand.

10. _______ When removing amin course dishes, first remove the
   - A. empty beverage glasses.
   - B. salad plate.
   - C. dinner plate.
   - D. extra flatware.

CHAPTER 31 TEST
Counter and Self Service

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. ________ Snack bars and diners usually provide
A. buffet service.
B. trayline service.
C. seated service.
D. counter service.

2. ________ The item below that is not a type of self-service is
A. vending machine service.
B. AMerivan service.
C. cafteria service.
D. buffet service.

3. ________ The counter worker is responsible for
A. washing dishes.
B. restocking supplies.
C. setting covers.
D. all of hte above.

4. ________ When taking orders, the counter worker
A. works from left to right along the counter.
B. is expected to temember individual orders without writing them down.
C. may take the customer's money and make correct change.
D. does not present a menu.

5. ________ Most counter workers have food preparation responsibilities for
A. making tea and coffee.
B. making sandwiches.
C. serving soups.
D. al of the above.

6. ________ When serving at a counter
A. the customer picks up the check at the cash register.
B. orders are assembled in the kitchen.
C. plate service is used.
D. all of the above.

7. ________ When displaying entrees for cafeteria service
   - A. garnishes should be omitted.
   - B. slices of meat should be overlapped.
   - C. meatballs should be stacked.
   - D. meat loaves and the vegetable accompaniment should be placed together in a pan.

8. ________ The cafeteria service worker is not responsible for
   - A. preparing entrees.
   - B. portioning food.
   - C. greeting customers.
   - D. making menu suggestions.

9. ________ The service worker who handles more food items than most service personnel is the
   - A. waitress.
   - B. counter worker.
   - C. bus person.
   - D. cafeteria worker.

10. ________ When packaging take-out orders
   - A. use disposable containers.
   - B. place lids on beverages.
   - C. include appropariate accompaniments and utensils.
   - D. all of the above.

CHAPTER 32 TEST
Other Types of Service

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ When planning the seating arrangement for a banquet or a catered meal, conseider the
   A. type of function and the number of guests.
   B. type of service, amount of equipment, and number of servers.
   C. hape of the room and any obstructions in the room.
   D. all of the above.

2. ________ When setting up tables for banquet service,
   A. one person should lay all covers ot one table.
   B. table cloths should not be overlapped on long tables.
   C. if possible, is used, the head tables should be elevated on a platform.
   D. service stands and tray stands are not used.

3. ________ In American banquet service,
   A. all dishes are served and removed from the right.
   B. banquet tables are completely set in advance.
   C. each guest is served individually from platters at the tables.
   D. tray stands are not used.

4. ________ For catered service,
   A. an invoice will help ensure that needed items are transported.
   B. portable ranges and ovens are transported to the site to cook the food.
   C. special insulated containers will help keep food art correct temperatures.
   D. all of the above.

5. ________ A type of service not offered by caterers is
   A. buffet service.
   B. trayline service.
   C. counter service.
   D. table service and banquet service.

6. ________ When assebling trays for hospital or nursiong home patients,
   A. diet orders are followed for each patient.
   B. one person sets up the tray, plates the food, and checks the tray.
   C. condiments are omitted; patients must ask for them.
   D. all of the above

7. ________ For delivering patient trays
   A. trays are hand-carried from the kitchen to the patient's room.
   B. some foods, like toast, may be prepared neat the patient's room.
   C. trays are reheated in the patient's rooms.
   D. trays are checked after they leave the kitchen.

8. ________ When delivering a room service order, the waiter or waitress should
   A. use the rom key to open the door.
   B. hand the tray to the guest at the door.
   C. presnt the check for signature or payment.
   D. aask the guest to call the service stand for tray pick-up.

9. ________ A food that would not be suitable for flaming is
   A. ice cream desserts.
   B. omelets.
   C. lobster.
   D. crepes.

10. ________ When replenishingh appetizers at a serving table
   A. refill the serving piece at the table.
   B. refill the tray when two or three appetizers remain on the tray.
   C. for variety, use a different size and shape tray.
   D. replace the tray with a duplicate tray prepard in the kitheen.

CHAPTER 33 TEST
Money Handling

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. ________ To figure sales tax without a tax table
   - A. add the amount of tax to the total.
   - B. add the amount of tax to the subtotal.
   - C. multiply the subtotal on the check by the amount of sales tax.
   - D. multiply the total on the check by the amount of slaes tax.

2. ________ When a mistake is found on the bill
   - A. destroy that check and fill tou a new one.
   - B. erase the error.
   - C. makr thorugh the error.
   - D. call the manager.

3. ________ When presenting the table service check to an indiviudal customer
   - A. figure the check away from the service area.
   - B. place the check face down on the table to the customer's right.
   - C. be graceful and diplomatic and invite the guest to return.
   - D. all of the above.

4. ________ In most commercial cafeterias
   - A. the checker at the end for the food line handles the money.
   - B. the customer pays the cashier as the customer leaves the establishment.
   - C. the dining room attnedant brings the check to the customer's table.
   - D. the check is presented face up on a check tray.

5. ________ The item below which is not a correct rpocedure for handling credit card payments is
   - A. ask to see the customer's driver's license for verfication.
   - B. check that the credit card is signed by the cardholder.
   - C. search the "hot card" list or call to verify.
   - D. return the credit card, crdit slip, and pen to the customer for signature.

6. ________ The correct way to count change for a $3.20 check when the customer gives a $10 bill is
   - A. $4.20, $9.20, $9.25, $9.50, $10.00.
   - B. $8.20, $9.20, $9.25, $9.50, $10.00.
   - C. $3.45, $3.70, $3.95, $4.00, $9.00, $10.00.
   - D. $3.25, $3.50, $3.75, $4.00, $5.00, $10.00.

7. ________ The first step to follow in closing the cash register at the end of the day is to
A. determine total cash sales.
B. determine cash in the drawer.
C. check the total on the cash register tape.
D. determine cash paid out.

8. ________ The first step to follow in determining cash on hand is to
A. list all credit slips and write down the total.
B. list all checks and write down the total.
C. count all bills and write down the total.
D. count all coins and wrtie down the total.

9. ________ When accepting a tip
A. give customers who do not tip the same service as customers who tip.
B. staty at the table to wait for the tip.
C. count your tips and record them while still in the dining room.
D. all of the above.

10. ________ The person usually in charge of ordering counter itmes like mints and chewing gum is the
A. waiter or waitress.
B. manager.
C. cashier.
D. bus person.

CHAPTER 34 TEST
Management Responsibilities

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. ________ A person can reach the managerial levelin food service by
A. working his or her way up in an organization.
B. entering a manamgement training program.
C. taking courses in hodpitality or business managment.
D. all of the above.

2. ________ A desirable trait of a food service manager is to be
A. enthusiastic about chaniging company policies.
B. authoritatian with workers of lower socioeconomic levels.
C. accepting of personal mistakes and willing to learn from them.
D. creative about scheduling wmpployees to work from 8 am to 5 pm.

3. ________ Orgamnnizational goals in commercial food service are
A. sypmtoms of identified problems.
B. objectives to achieeving financial success.
C. guidelines for operation of the facility.
D. methods for acrrying out policies.

4. ________ Compared to organizational goal, a policy is more
A. measurable.
B. global.
C. planned.
D. accepted.

5. ________ A symptom of a food service organizxation that is overburndended by policies and procedures is
A. confused employees.
B. restricted creativity.
C. restricted communications.
D. all of the above.

6. ________ When food service managers ask employees for ideas or suggestions,
A. all ideas and suggestions should be carried out at least for a short period of time.
B. a personal explanation should be given to each employee whose suggestions are not adopted.
C. after suggestions are rejected, a general thank you to groups of employees by shift supervisors is adequate.
D. all of the above.

7. ________ Which of the following is a procedure statemnt?
A. "The food service operation wil l employ students from local vocational programs."
B. "All employees will be paid a fair living wage."
C. "Wages for sald makers will be $3.55 per hour."
D. "Employees will be paid by check each Friday."

8. ________ The federal law that regulates minimum wage is the
A. Social Security law.
B. Workman's Compensation law.
C. Fair Labor Standards Act.
D. Wage Deduction Act.

9. ________ The total wages paid, and income tax, and social security deductions for the past year must be given to each employee in January on a stament called a(n)
A. W-2 form.
B. W-4 form.
C. workman's compensation form.
D. unemployment compensation form.

10. ________ For infomration about laws related to sanitary codes, contact your local or state
A. department of labor.
B. department of health.
C. employment commission.
D. any of the above.

CHAPTER 35 TEST
Cost Control

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ The framework of cost control in a food service establishment is
   A. the inventory.
   B. the menu.
   C. purchasing.
   D. receiving.

2. ________ Fast food operations use standard menus, served everyday, referred to as
   A. cycle manus.
   B. rotated menus.
   C. fixed menus.
   D. all of the above.

3. ________ Manus prepared for a specific period of time, like those used in school cafeterias are called
   A. framework or blueprint menus.
   B. fixed or rotated menus.
   C. rotated or cycle menus.
   D. framework or fixed menus.

4. ________ A factor that influences menu planning is
   A. personnel available.
   B. style of service.
   C. price and availability of food.
   D. all of the above.

5. ________ The item below that is not an overhead cost is
   A. rent.
   B. labor.
   C. utilities.
   D. equipment repair.

6. ________ Turnover is
   A. directly related to style of service.
   B. determined by calculating the number of customers occupying a dining seat per hour.
   C. figured by multiplying labor and food costs.
   D. linked to menu format.

7. ________ A hamburger is made up of 1/4 lb. beef ($ 4.67), lettuce ($.04), onion ($.03), and bun ($.14). The cost of the hamburger to the food service establishment is
A. $.88.
B. $.17.
C. $.71.
D. $.78.

8. ________ To figure the food cost percentage of an item
A. divide the cost of food by the selling price.
B. subtract the cost of food from the selling price.
C. divide the ocst of food by the markup percentage.
D. multiply the cost of food by the markup percentage.

9. ________ When the food service manager tries to predict the popularity of a new menu item, he or she is
A. over-buying.
B. standardizing recipes.
C. forecasting.
D. costing itmes.

10. ________ The item below that is not an appropriate guideline for developing standardized recipes is
A. list the ingreidients in the form and the order in which they will be used.
B. provided portion yield increments in two of the more common increments served by the food service operation.
C. list all measurements by weight, if possible.
D. list the procedure steps at the end of the recipe, below the ingreidients.

CHAPTER 36 TEST
Buyers, REceivers, and the Storeroom

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. ________ Another name for a steward is
A. purchasing agent.
B. receiving celrk.
C. manager.
D. vendor.

2. ________ Knowledge necessary for a food buyer includes
A. basic serving skills
B. sidework skills.
C. skills in writing specifications.
D. all of the above.

3. ________ One code that Lendal Kotscevar includes in his code of ethics for food buyers is
A. be courteous at all times.
B. keep sense of humor.
C. set a high standard of conduct.
D. all of the above.

4. ________ The item below that is not a good purchasinf princilple to follw is to
A. buy for a set perios fo time.
B. buy bulk from bulk-purveyors; buy limited quantities from limited quantity-purveyors.
C. beware of bargins.
D. use the amount on hand as a basis for deciding how much to order.

5. ________ To be effective buyers, food service managers must have
A. extensive knowledge of the supplier's operation.
B. a type B personality.
C. a definite plan for purchaisng food and supplies.
D. appropriate purchase orders and requisition forms.

6. ________ Two of the key elemts included in purchasew specifications are
A. quality and quantity.
B. richness and texture.
C. price and wholesiomeness.
D. recipe and emplyee needs.

7. ________ One factor in choosing a supplier that a buyer must consider is

A. does the supplier accept checks or credit cards?
B. does the supplier partially prepare some foods?
C. does the supplier give accurate, up-dated prices?
D. does the supplier, supply 24 hours a day?

8. ________ The meaning of 2/10: NET 30 is

A. 2 rows of ten plus a third row of 10 for a net of 30.
B. a 2 percent discount if the buyer pays the bill on or before the 10th day of the month.
C. 2 percent of 10 with the net of 30 being charged at the full price.
D. USDA Governement labeling of produce purchased from a full-line purveyor.

9. ________ An advantage to using a purchase order is that it

A. provides a complete record of the order for each supplier.
B. provides a guide for the receiving clerk.
C. provides the receing clerk with immediate verification of invoice prices.
D. all of the above.

10. ________ The main job of the receinving clerk is to

A. issue food and dupplies to workers in the food service establishment.
B. fill out purchase orders and requisition forms.
C. conduct perpetual and physical inventories.
D. count, weigh, and recod food and supplies delivered.

CHAPTER 37 TEST
FInances and Recordkeeping

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left fo the item.

1. ________ The recordkeeping and acccounting for a food service estagblishment is usually done by
   A. the manager.
   B. trained bookkeepers and accountants.
   C. the cashier.
   D. the host or hostess.

2. ________ An indicator of financial porblems in a ffod service operation is
   A. low income.
   B. high payroll.
   C. high food and supply costs.
   D. all of the above.

3. ________ The food service manager can determine the net worth of the food service establish ment form the
   A. profit and loss stament.
   B. accounts receivable.
   C. balance sheet.
   D. owner's equity.

4. ________ Current assests include
   A. food and supplies on hand.
   B. accounts payable.
   C. kitchen equipment.
   D. tableware and silverware.

5. ________ A financial staemtn that compares the cost of food purchased and cost of food sold with total sales is the
   A. break-even analysis.
   B. depreciation statemenr.
   C. profit and loss statment.
   D. liability statement

6. ________ Dividing the gross profit by gross profit percent gives the
   A. balance.
   B. profit and loss statment.
   C. net profit.
   D. break-even point.

7. ________ The item below that would not be deducted from emplyee wages is
A. sales tax.
B. social security tax.
C. federal income trax.
D. state income tax.

8. ________ Real estate tax paid by a food service business are usually based on
A. assessed value of the property.
B. tax records.
C. license fees.
D. all of the above.

9. ________ The most common use of computers in food service is
A. invnetory reocrds.
B. cash registers.
C. payroll managment.
D. sales analysis.

10. ________ Guidelines for selecting computer hardware and software for food service operations nclude
A. clearly defining the computer needs of the food service establishment.
B. using software before buying it.
C. checking on avaialbility of foolw-up support.
D. all of the above.

CHAPTER 38 TEST
Personnel and Production Management

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ Which of the following is not an advantage of providing job descriptions?
   A. determining acceptable salaries
   B. lessening confusion for employer and employee
   C. providing person-hour comparisons
   D. aiding effective hiring procedures

2. ________ Additional training of employees is necessary when
   A. new facilities are opened.
   B. procedures change.
   C. new equipment is purchased.
   D. all of the above.

3. ________ Staffing tables
   A. predict the number of guests expected each day for each meal.
   B. are based on labor cost budgets.
   C. are based on labor cost percentages.
   D. are used only for irregular scheduling.

4. ________ Promotion to a job that has different duties at the same level of responsibility as the job the employee currently holds is a
   A. vertical promotion.
   B. horizontal promotion.
   C. staff promotion.
   D. voluntary promotion.

5. ________ Regardless of the reason for separation, each employee who leaves should be given a(n)
   A. written performance analysis.
   B. layoff packet.
   C. exit interview.
   D. reference for another job.

6. ________ The labor cost percentage is figured from the profit and loss statement by
   A. dividing the income from sales by the number of hours employees worked
   B. dividing labor costs by total sales.
   C. figuring the total hours employees worked for every 100 meals served.
   D. comparing total hours employees worked during two time periods.

7. ________ Labor costs can be reduced by
   A. having workers replace the work done by machines.
   B. having workers work in pairs.
   C. using work simplifications procedures in all tasks.
   D. all of the above.

8. ________ A record of the foods prepared for a meal is a
   A. production schedule.
   B. task analysis.
   C. quality control evaluation form.
   D. portion control chart.

9. ________ Portion control is primarily maintained
   A. when ingredients are purchased.
   B. by standardizing recipes.
   C. by customer request.
   D. during serving.

10. ________ A benefit of production and quality control in food service is
   A. support for other cost control systems.
   B. establishment of standards for employees to follow.
   C. increased customer satisfactions.
   D. all of the above.

CHAPTER 39 TEST
Merchandising and Public Relations

DIRECTIONS: For each item below, place the letter of the best answer in the blank to the left of the item.

1. ________ A successful marketing program brings the
   - A. advertising to the location.
   - B. service to the location.
   - C. product to the market.
   - D. market to the product.

2. ________ A product study should consider
   - A. location, appearance of the building, outside sign.
   - B. entrance, public areas, and capacity.
   - C. food, service, and staff.
   - D. all of the above.

3. ________ Age, sex, job status, and level of income of potential customers are called
   - A. a target market.
   - B. demographic factors.
   - C. census information.
   - D. a market study.

4. ________ The leader in the number of dollars spent for advertising is
   - A. newspapers.
   - B. magazines.
   - C. direct mail.
   - D. television.

5. ________ The first step in deciding which method of advertising is best to use is to decide on the
   - A. media.
   - B. budget to be used for advertising.
   - C. objectives of the advertising campaign.
   - D. message

6. ________ Media attention drawn to the food service operation by some type of special interest project is
   - A. advertising.
   - B. publicity.
   - C. a promotion.
   - D. all of the above.

7. ________ The menu
A. is a merchandising tool.
B. has no relation to merchandising.
C. does not affect sales.
D. should be at least 9" x 12" in size.

8. ________ Special ways of presenting food to the customer are called
A. point-of-purchase sales.
B. add-ons.
C. showmanship.
D. advertising.

9. ________ Public relations
A. are measures taken to win community respect.
B. are based on good management.
C. involve interrelationships with advertising and promotional programs.
D. all of the above.

10. ________ The food service employee who makes a decision to change the quality of food or service based on customer suggestion cards is the
A. chef.
B. hostess.
C. manager.
D. waiter or waitress.

Chapter Test Answers

CHAPTER 1 TEST

1. D
2. B
3. A
4. C
5. A
6. D
7. C
8. B
9. C
10. D

CHAPTER 2 TEST

1. C
2. B
3. D
4. A
5. B
6. C
7. D
8. C
9. B
10. A

CHAPTER 3 TEST

1. D
2. B
3. C
4. D
5. B
6. A
7. D
8. B
9. D
10. C

CHAPTER 4 TEST

1. C
2. B
3. B
4. A
5. C
6. A
7. C
8. A
9. D
10. D

CHAPTER 5 TEST

1. C
2. C
3. A
4. A
5. B
6. D
7. B
8. D
9. C
10. B

CHAPTER 6 TEST

1. D
2. A
3. C
4. B
5. D
6. B
7. C
8. B
9. D
10. B

CHAPTER 7 TEST

1. D
2. C
3. B
4. A
5. C
6. D
7. A
8. B
9. A
10. B
11. C
12. A
13. D
14. D
15. B

CHAPTER 8 TEST

1. B
2. D
3. B
4. C
5. D
6. A
7. B
8. D
9. C
10. A

CHAPTER 9 TEST	CHAPTER 10 TEST	CHAPTER 11 TEST	CHAPTER 12 TEST
1. B	1. D	1. C	1. D
2. D	2. B	2. D	2. D
3. B	3. D	3. A	3. C
4. A	4. C	4. C	4. A
5. C	5. C	5. B	5. A
6. D	6. B	6. C	6. C
7. D	7. C	7. B	7. D
8. A	8. A	8. B	8. A
9. B	9. D	9. D	9. C
10. C	10. A	10. D	10. A

CHAPTER 13 TEST	CHAPTER 14 TEST	CHAPTER 15 TEST	CHAPTER 16 TEST
1. C	1. D	1. A	1. C
2. D	2. C	2. C	2. D
3. A	3. A	3. D	3. A
4. C	4. B	4. A	4. D
5. B	5. D	5. C	5. D
6. C	6. C	6. A	6. C
7. D	7. B	7. D	7. A
8. D	8. D	8. D	8. B
9. B	9. A	9. B	9. B
10. A	10. C	10. D	10. C

CHAPTER 17 TEST

1. C
2. B
3. A
4. B
5. D
6. D
7. A
8. C
9. A
10. A

CHAPTER 18 TEST

1. B
2. C
3. D
4. A
5. B
6. A
7. C
8. A
9. C
10. D

CHAPTER 19 TEST

1. D
2. C
3. B
4. A
5. D
6. D
7. A
8. C
9. B
10. C
11. B
12. A
13. B
14. B
15. D

CHAPTER 20 TEST

1. B
2. D
3. D
4. A
5. C
6. B
7. D
8. A
9. C
10. C
11. D
12. A
13. D
14. B
15. C

CHAPTER 21 TEST

1. D
2. A
3. D
4. C
5. B
6. D
7. A
8. C
9. B
10. A

CHAPTER 22 TEST

1. B
2. D
3. D
4. C
5. A
6. C
7. B
8. D
9. C
10. A

CHAPTER 23 TEST

1. C
2. D
3. A
4. B
5. D
6. A
7. B
8. D
9. C
10. A

CHAPTER 24 TEST

1. C
2. D
3. A
4. C
5. B
6. C
7. D
8. A
9. D
10. A

CHAPTER 25 TEST	CHAPTER 26 TEST	CHAPTER 27 TEST	CHAPTER 28 TEST
1. D	1. C	1. D	1. D
2. B	2. D	2. B	2. D
3. C	3. C	3. A	3. A
4. C	4. B	4. C	4. C
5. A	5. A	5. D	5. B
6. D	6. B	6. D	6. C
7. B	7. C	7. B	7. D
8. C	8. D	8. C	8. A
9. D	9. B	9. A	9. C
10. C	10. A	10. B	10. C

CHAPTER 29 TEST	CHAPTER 30 TEST	CHAPTER 31 TEST	CHAPTER 32 TEST
1. D	1. C	1. D	1. D
2. B	2. A	2. B	2. C
3. C	3. B	3. D	3. B
4. C	4. D	4. C	4. C
5. D	5. D	5. D	5. C
6. A	6. C	6. C	6. A
7. C	7. C	7. B	7. B
8. A	8. B	8. A	8. C
9. B	9. A	9. B	9. B
10. A	10. C	10. D	10. D

CHAPTER 33 TEST

1. C
2. C
3. D
4. B
5. A
6. D
7. B
8. C
9. A
10. C

CHAPTER 34 TEST

1. D
2. C
3. B
4. A
5. D
6. B
7. D
8. C
9. A
10. B

CHAPTER 35 TEST

1. B
2. C
3. C
4. D
5. B
6. B
7. A
8. A
9. C
10. D

CHAPTER 36 TEST

1. A
2. C
3. D
4. B
5. C
6. A
7. B
8. B
9. D
10. D

CHAPTER 37 TEST

1. B
2. D
3. C
4. A
5. C
6. D
7. A
8. A
9. B
10. D

CHAPTER 38 TEST

1. C
2. D
3. A
4. B
5. C
6. B
7. C
8. A
9. D
10. D

CHAPTER 39 TEST

1. D
2. D
3. B
4. A
5. C
6. B
7. A
8. C
9. D
10. C

Activity Book Answers

CHAPTER 1

ACTIVITY 1-2

1. F
2. T
3. T
4. F
5. T
6. F
7. F

ACTIVITY 1-3

1. - where food is prepared
   - how it is served
   - who they feed
   - type of ownership
   - menu choice
2. Seated service units serve food to individuals seated at tables, booths, or sit-down counters. Self-service units allow customers to serve themselves in a cafeteria line, at a buffet, at a take-out service, at a counter or window, or from a vending machine.
3. - general public
   - persons at schools, airlines, ships, business, or vending machines
   - students, patients, or residents in schools, hospitals, nursing homes, military bases, prisons, and Salvation Army and Red Cross facilities
   - employees in businesses, factories, banks, and similar facilities

ACTIVITY 1-4

1. B
2. A
3. E
4. C
5. D

ACTIVITY 1-5

1. - Many types of food service jobs are available.
   - Salaries and fringe benefits are similar to other industries.
   - Part-time jobs and flexible schedules are available.
   - Food service workers are in demand.
   - Working atmosphere is usually pleasant.
   - Opportunities for advancement exist.
   - Management and ownership opportunities exist for ambitious persons.
2. - Work hours may be inconvenient.
   - Work is often done under pressure.
   - The work may cause fatigue.
   - Pay for entry-level positions may be low.

CHAPTER 2

ACTIVITY 2-2

1. front-of-the-house
2. back-of-the-house

ACTIVITY 2-3

1. back
2. front
3. back
4. back
5. front

ACTIVITY 2-4

1. C
2. D
3. A
4. E
5. B

ACTIVITY 2-6

1. D
2. C
3. F
4. J
5. H
6. I
7. E
8. A
9. L
10. K
11. B
12. G
13. M

CHAPTER 3

ACTIVITY 3-2

1. • establish safety rules and procedures
   • provide employees with safety training
   • enforce safety rules and regulations
   • provide fire extinguishers and first aid kits
2. • observing safety rules and procedures
   • identifying and report hazards
   • knowing the location of emergency equipment and how to use it
   • knowing emergency procedures and escape routes
3. to assure safe, healthful working conditions for employees

ACTIVITY 3-3

1. bruises
2. shocks
3. cuts
4. falls
5. strains
6. burns
7. explosions

ACTIVITY 3-6

1. spills
2. run
3. chair
4. lanes
5. shoes
6. knife
7. handle
8. away
9. cutting
10. sharp
11. sink
12. hands
13. lids
14. pads
15. handles
16. wet
17. electrical
18. steam
19. wall
20. water
21. grease
22. gas
23. salt
24. overload
25. heavy
26. going
27. weight
28. carry

CHAPTER 4

ACTIVITY 4-2

1. Get help by notifying the designated person in your area.
2. Then, if necessary, call the fire department.
3. Alert other employees and customers

ACTIVITY 4-4

1. A
2. C
3. B
4. oxygen, fuel, and heat

ACTIVITY 4-5

1. D
2. A
3. E
4. B
5. E
6. F
7. C

ACTIVITY 4-6

1.
    - thunderstorms
    - lightning
    - tornados
    - hurricanes
    - blizzards

2. • National Weather Service Weather Radio
   • attention alert signal
   • local TV or radio stations
3. • a three- to five- second, steady, high pitched tone that means that action is required and is used to alert the public to fire or storms
   • knowing what it means will help in knowing how to respond
4. A tornado watch means conditions are such that tornados could develop.
   A tornado warning means a tornado has been sighted — visually or by weather radar
5. • tornado shelters and/or cellars
   • underground excavations
   • substantial steel framed or reinforced concrete buildings
6. in order to take cover immediately
7. • exits should be well-marked and kept clear
   • candles used on tables for atmosphere can provide light in case of power failure
   • calm employees who are familiar with evacuation plans should direct customers calmly and safely out of the building

ACTIVITY 4-7

1. choking
   burns
   cuts and bruises
2. The person who is choking will not be able to answer aloud. The heart attack victim will be able to answer aloud.
3. The abdominal thrust and the chest thrust. (See pages 27 and 28 in reference book for a description of these two procedures.)

ACTIVITY 4-9

First-degree —
  description: skin reddened but unbroken
  treatment: place under cold water
Second-degree —
  description: skin reddened, blisters formed
  treatment: place under cold water; cover with dry sterile dressing
Third-degree —
  description: skin partly destroyed, charring present
  treatment: cover entire area with a dry, sterile dressing

ACTIVITY 4-10

1. • kind of injuries that have occurred and to whom
   • the day and the hour they occurred and where they occurred
2. the management
3. for OSHA and insurance purposes

CHAPTER 5

ACTIVITY 5-2

1. F
2. T
3. F
4. F
5. F
6. T
7. T
8. F
9. T

ACTIVITY 5-4

1. immersion of an object in water at 170°F (about 77°C) for no less than 30 seconds
2. (1) Clean the sinks and work surfaces before beginning.
   (2) Presoak, scrape, and sort items to be cleaned on a scraping table or other area where garbage can be disposed.
   (3) Wash in the first sink in a clean detergent solution at a temperature of 120°F (about 49°C). Use a brush or dish mop to loosen and remove any remaining soil.
   (4) Rinse in the second sink in clean water 120 to 140°F (about 49 to 64°C). Be sure all traces of food soil and detergent are removed.
   (5) Sanitize in the third sink by immersing items in hot water at 170°F for 30 seconds or in a chemical sanitizer solution for one minute. A sanitizing solution for immersion sanitizing may be made of 1oz (2 tablespoons) of chlorine bleach to one gallon of water.
   (6) Air dry all sanitized items. Do not wipe dry as wiping can recontaminate the items.
3. Stationary dishwashing machines complete wash, rinse, and sanitize cycles without moving the rack of items. A conveyor dishwashing machine moves the dishes along a conveyor through the various cycles.
4. glassware — place upside down in dish machine racks
   tableware — all of one kind of dish should be loaded together in the same rack
   flatware — put into special racks with the eating ends up
5. Cart must be kept clean and sanitary.
   Storage area must be more than six inches off the floor and should be protected from splashes, dust, and contact with food.
   Stored items must be accessible without having to touch surfaces which will contact food or beverages or the customer's mouth

ACTIVITY 5-5

Pigeons
Cockroaches
Cereal mites
Rats
Flies
Silverfish
Weevils
Mice
Ants
Starlings
Sparrows
Beetles
Fire brats

ACTIVITY 5-6

1. D
2. F
3. G
4. D
5. E
6. A
7. F
8. B
9. D

CHAPTER 6

ACTIVITY 6-2

1. Answers may vary, but should include three of the guidelines listed on page 51 in the reference book.
2. requires that all potentially hazardous food be kept at an internal temperature below 45°F (7.2°C) or above 140°F (60°C) during display and service (Keep hot foods hot and cold foods cold.)
3.
    - Foods most frequently associated with food borne illnesses, such as custards, puddings, and creamed casseroles, should be discarded.
    - Do not leave coffee cream at room temperature on a table or counter.
    - Perishable leftovers should be chilled to an internal temperature of 45°F (7.2°C) or less within two to four hours.
    - Store leftovers in containers with the greatest surface area possible.
    - Cover leftovers tightly and label with food name and date.

ACTIVITY 6-3

1. F
2. T
3. T
4. T
5. F
6. T
7. F
8. T
9. T
10. T
11. F
12. F
13. F
14. F
15. F
16. T
17. F
18. T
19. F
20. F
21. T
22. F
23. T
24. T
25. T
26. T
27. F
28. T

ACTIVITY 6-4

ACROSS

1. infection
2. State and local
4. microorganisms
6. customer
10. Sanitation
11. Federal
12. sanitation
13. viruses

DOWN

1. intoxication
3. sanitary codes
5. Biological
7. Inspections
8. food-borne
9. Bacteria
11. fungi

ACTIVITY 6-5

1. staphylococcus aureus
2. clostridium botulinum
3. clostridium perfingenes
4. salmonella

CHAPTER 7

ACTIVITY 7-2

1. - provides the body with the fuel it needs for creating heat and energy
   - builds, repairs, and maintains the food
   - meets physical, social, and emotional needs
   - serves social needs
2. - proteins
   - carbohydrates
   - fats
   - vitamins
   - minerals
3. - proteins
   - carbohydrates
   - fats
4. in calories
   the more calories food contains, the more energy it produces
5. Answers may vary, but can be found on pages 57-59 of the reference book.

ACTIVITY 7-3

1. nutrients
2. body building
3. carbohydrates
4. amino acids
5. fats
6. fat-soluble vitamins
7. cholesterol
8. complete proteins
9. water-soluble vitamins
10. water-soluble vitamins
11. trace minerals
12. iodized salt
13. water
14. malnutrition
15. cellulose

ACTIVITY 7-4

1. F
2. C
3. A
4. B
5. D
6. G
7. E
8. H

ACTIVITY 7-5

1. A
2. B
3. B
4. F
5. C
6. E
7. B
8. A
9. D
10. F
11. E
12. C
13. E
14. F
15. B
16. A
17. D
18. C

ACTIVITY 7-10

1. T
2. F
3. F
4. T
5. T
6. F
7. F

CHAPTER 8

ACTIVITY 8-2

1. cycle menus
2. menu
3. three, six
4. nutritional
5. licensing
6. one-third
7. colorful
8. crunchy
9. variety
10. cultures
11. committee
12. attractive, nutritious, low-priced

ACTIVITY 8-4

1. physical needs
   social needs
2. loss of appetite
3. two of the following:
   - eating with others helps improve the appetites of residents
   - residents get exercise coming to the dining area, which helps formerly bedfast patients to regain their strength
   - the morale and sociability of residents is improved
   - residents show an increased interest in their personal appearance
4. lose interest in food and not eat enough
   may eat too much
5. adjust to living in an institution (change in environment)
   adjust to having a chronic illness
   adjust to being out of touch with family and friends
   adjust to being dependent on others to do things
   that they were once able to do for themselves
6. able to walk

ACTIVITY 8-5

1. H
2. D
3. G
4. E
5. F
6. I
7. A
8. J
9. C
10. B

CHAPTER 9

ACTIVITY 9-2

1. Tools are hand-held equipment such as knives, spatulas, spoons, and turners. Utensils are containers for holding food.
2. to achieve quality in food production and to control costs
3. because glass chips easily
4. any two of the following:
   - Use cups which have the rim above the "full cup" line and a pouring lip or spout for measuring liquids.
   - Use cups without the rim or pouring lip for measuring dry ingredients and shortening.
   - Use graduated spoons for measuring small amounts of liquids and dry ingredients.
   - Use larger measures whenever possible to avoid filling the smaller measure several times.
5. any two of the following:
   - Wash thoroughly after each use.
   - Use plastic measures carefully because they warp easily and are then no longer accurate.
   - Handle glass measures carefully because they chip easily.
   - Care for measuring spoons by using them only for measuring — not for mixing or stir ring.
   - Store measuring equipment carefully because bent measures are no longer accurate.
6. a. Pack firmly into measuring container (unless stated otherwise).
   b. Press firmly into measuring container and level off.
   c. Use amount which can be held between the thumb and forefinger
   d. Place measuring cup on a flat surface, and read measurement at eye level.
   e. I f the correct size spoon is not available, use a full teaspoon. Run a knife lengthwise through the center of the spoon for a 1/2 spoonful measure and then crosswise through the center of the spoon to divide the ingredients into 1/4 spoonfuls.
   f. Usually weighed or stirred and measured in large quantities. In smaller quantities, sift flour before measuring to make it light and to remove any lumps. Spoon or scoop sifted flour gently into cup. Do not shake, pack, or hit the side of measuring cup. Move a straight-edged knife or spatula across top edge of measuring container to remove excess flour.
   g. Measure in some way as flour.
7. confectionery
   probe-type meat thermometer
   fat thermometer
   dial-type thermometer

ACTIVITY 9-3

1. boning knife
2. bread knife
3. sharpening steel
4. French knife
5. paring knife
6. butcher knife
7. peeler
8. slicer
9. 8, 2
10. 7
11. 1
12. 2
13. 4
14. 5
15. 8

ACTIVITY 9-4

1. ladle
2. pastry brush
3. slotted and perorated spoon
4. scraper
5. tongs
6. wire whip or whisk

ACTIVITY 9-5

1. two-tine or cook's fork
2. sandwich spreader
3. scoop
4. pie knife
5. spatula
6. offset spatula or turner

ACTIVITY 9-6

1. B
2. E
3. D
4. D
5. A
6. C
7. A
8. D

ACTIVITY 9-7

1. two-tine or cook's fork
2. sandwich spreader
3. spatula
4. pastry brush
5. ladle
6. tongs
7. scraper
8. wire whip or whisk
9. scoop
10. offset spatula or turner
11. boning knife
12. bread knife
13. slotted or perforated spoon
14. butcher knife
15. pie knife
16. French knife
17. slicer
18. peeler

ACTIVITY 9-8

Saucepan — cooking small amounts of sauces, vegetables, or other foods
Baking sheet — baking cookies, rolls, and biscuits
Skillet — cooking foods in a small amount of fat
Stockpot — cooking larger amounts of food like soup, chilli, spaghetti, or corn-on-the-cob
loaf pan — baking loaves of bread
bake pan — used for foods like macaroni and cheese, roasted meats, cakes, and gelatin salads
cake pan — (round) used for layer cakes; (square) used for coffee cakes or one layer cakes
muffin pan — used for baking corn muffins, rolls, and breakfast muffins
roasting pan — used for roasting meat, poultry, and fish
colander — used to drain cooked foods like pasta and to rinse salad greens and berries
double boiler — used for foods which must be kept below the boiling point, such as puddings and sauces

CHAPTER 10

ACTIVITY 10-2

1. C
2. D
3. A
4. B

ACTIVITY 10-3

1. baker's scale
2. spring-type scale
3. portion scale
4. balance scale

ACTIVITY 10-4

1. to remove lids from cans ranging from small through institutional sizes
2. because they can cause metal shavings to drop into food
3. because food deposits that remain on a can opener not only cause bacterial contamination, off-flavors, and odors in food but also may interfere with the operation of the can opener.
4. can opener blades should always be wiped clean with a damp, sudsy cloth. Most cutter wheel assemblies may be removed for cleaning but check manufacture's directions first.

ACTIVITY 10-5

1. food slicer
2. blade
3. unplugged
4. cleaning
5. guard
6. knives
7. meat
8. manufacturer
9. food processor
10. pusher
11. base
12. abrasive

ACTIVITY 10-6

ACROSS

2. meat and food chopper
3. pusher
4. table model
7. floor model
9. blender

DOWN

1. vegetable hopper
3. pastry knife
5. dough hook
6. flat beater
8. wire whip

ACTIVITY 10-7

1. coffee brewer
2. tea dispenser
3. automatic beverage dispenser
4. electric urn
5. ice making machine

ACTIVITY 10-8

1. steamer
2. broiler
3. grill
4. deep-fat fryer
5. microwave
6. regular oven
7. toaster
8. exhaust hood
9. convection oven
10. range top

ACTIVITY 10-9

1. answers may vary
2. range top — burned on food should be removed with a wire brush or scraper. The top, units, sides, and base should be wiped with a hot water and detergent solution, then raised and dried.
   exhaust hood — use a cloth, warm water, and detergent solution to remove grease film. Rinse and dry the hood. Wash grease filters weekly in the dishwashing machine.
   grill — season surface of grill with unsalted oil, then heat to form a slick surface. Allow to cool, then scrape the surface with a spatula or a stiff metal scraper. Remove food that is stuck with a pumice brick. Then wipe with a grease mop and polish with a soft cloth.
   broiler — remove all traces of grease, and empty drain cans daily
   toaster — should be wiped outside and crumbs removed daily
3. microwave — cook many foods in much less time than a conventional oven; food can be heated or served in the same dish.
   stack — the temperature of each shelf is controlled by its own thermostat so a variety of foods can be cooked at the same time
   revolving — trays revolve while products bake, ensuring a constant, even temperature
   convection — bake more quickly than regular ovens; because the circulating air provides even heat, more baking pans can be placed in the oven than in a conventional oven of the same size.
   reconstitution — rapid heating; frozen foods may be stored either in the unit until reconstituting time or moved to the heating unit from the frozen storage area.

CHAPTER 11

ACTIVITY 11-2

1. circulate
2. cover
3. necessary
4. coldest
5. three-eighths
6. Baking soda
7. Frozen food
8. Wrap
9. frost
10. thawed

ACTIVITY 11-3

2. Prewash
5. Rinse
6. Sanitize
8. Store
1. Scrape
3. Rack
4. Wash (in machines)
7. Air dry

ACTIVITY 11-4

1. E
2. H
3. A
4. L
5. B
6. F
7. K
8. C
9. D
10. J
11. D
12. I

ACTIVITY 11-5

1. B
2. A
3. C
4. B
5. B
6. D
7. B

ACTIVITY 11-6

1. stations
2. task
3. Formal, informal
4. work centers
5. menu, service, kitchen
6. Work tables, counters
7. left, right
8. food
9. limits
10. more

CHAPTER 12

ACTIVITY 12-2

1. Convenience
2. wholesomeness
3. Processed
4. USDA
5. Meats
6. product
7. Milk
8. processing
9. Convenience
10. Grading

ACTIVITY 12-3

1. E
2. D
3. C
4. A
5. F
6. B

ACTIVITY 12-5

1. receiving clerk
2. Receiving
3. blind receiving
4. C

   REASONS could include the following:
   a. Some action might need to be taken before the bread delivery is accepted.
   b. The food service supervisor or other person in charge of checking the items for quality should be notified when the delivery is inferior.
   c. It is not Betty's responsibility to inform the supplier.
5. a. Name of vendor
   b. date received
   c. description of items
   d. quantities or weights received
6. (any four of the following)
   a. have a working knowledge of food
   b. be able to keep complete and accurate records
   c. be able to accurately check invoices or delivery slips against items received
   d. be trustworthy
   e. be able to maintain daily receiving records

7.

Quan.	Unit	Description
12	1 lb.	ABC Ground Pepper
2	30 oz.	Sunny Acres Grade A Large Eggs
4	100 lb.	Wheatland All-purpose flour
6	No. 10 cans	Favorite Fruits Sliced Apples
1	100 lb.	Idaho Delight Irish Potatoes
1	50 lb.	Marketplace Onions

CHAPTER 13

ACTIVITY 13-2

1. yield
2. portion
3. utensils
4. amount
5. ingredients
6. method
7. notes
8. variation

ACTIVITY 13-3

1. calories
2. pound
3. 350 degrees Fahrenheit
4. cups
5. minutes
6. few grains
7. seconds
8. teaspoon
9. approximately
10. tablespoon
11. tablespoons
12. hour
13. teaspoons
14. tablespoons, monosodium glutamate
15. large
16. ounces
17. temperature
18. small
19. weight
20. pound package

ACTIVITY 13-4

1. lb.
2. gal.
3. lb.
4. oz.
5. qt.
6. oz.
7. oz.
8. T., tb., or tbsp.
9. gal.
10. hrs.
11. oz.
12. c.
13. c.
14. c.
15. T., tb., or tbsp.
16. sq.
17. f.g.
18. T., tb., or tbsp.
19. t., ts., tsp.

ACTIVITY 13-5

1. B
2. E
3. H
4. G
5. A
6. C
7. F
8. D

ACTIVITY 13-6

1. 9 T. cocoa plus 3 T. fat for 3 sqs. chocolate
   1 c. fresh milk plus 3 t. baking powder for 1 c. sour milk and 1 t. soda
   1 3/4c. all-purpose flour for 2 c. cake flour
2. a. 1 c. reconstituted non-fat dry milk plus 2 T. fat = 1 c. milk
   b. 6 T. cocoa plus 2 T. fat = 2 sqs. chocolate
   c. 1 3/4 t. cream of tartar = 2 T. corn syrup

ACTIVITY 13-7

1. 15 milliliters
2. 240 milliliters
3. 240 milliliters
4. .50 milliliters
5. .95 liters or 950 milliliters
6. 454 grams
7. .50 milliliters
8. .50 milliliters
9. 60 milliliters

ACTIVITY 13-9

1. 6-7 #303 cans
2. #303 can
3. 12-13 cups
4. #3 can or a 46 fl. oz. can
5. a. 6 oz. can = 3/4 cups
   b. #2 can = 2 1/2 cups
   c. 8 oz. can = 1 cups
   d. 32 oz. can = 4 cups
   e. #303 can = 2 cups

ACTIVITY 13-8

1. a. 1 pt.
   b. 1 pt.
   c. 1 T. and 1 t.
   d. 1 1/2 lb.
   e. 1/4 c.
2. a. 2 1/4 c.
   b. 1 1/2 c.
   c. 1-6 oz.
   d. 1-6 oz.
   e. 1/2 gal.
3. a. 30 lb.
   b. 1 1/2 lb.
   c. 3/4 c.
   d. 3 lb. 12 oz.
   e. 2 lb. 4 oz.
   f. 2 lb. 4 oz.
   g. 6 lb.
4. a. 1 gal
   b. 1 qt.
   c. 1 pt.
   d. 1 pt.
   e. 1 c.
   f. 1 c.
   g. 1 T.
   h. 1 T.

ACTIVITY 13-10

	(100 Portions)	(25 Portions)
Ground beef	30 lbs.	7 1/2 lbs.
Eggs	2 doz.	6 eggs
Tomato Sauce	10 c. = 5 pt. = 2 qt. 1 c.	2 1/2 c.
Onions`	2 lb.	8 oz. = 1/2 lb.
Parsley	4 oz.	1 oz.
Paprika	4 T.	1 T.
Salt	4 T.	1 T.
Pepper	4 T.	1 T.

ACTIVITY 13-11

1. C
2. Sp
3. Sp
4. E
5. S
6. Sp
7. C
8. Sp
9. Sp
10. E
11. H
12. Sp
13. H
14. S
15. C
16. Sp
17. H
18. H
19. H
20. C

ACTIVITY 13-12

1. O
2. O
3. X
4. O
5. X
6. X

ACTIVITY 13-13

convenience food

any two of the following:

- to eliminate steps in food preparation
- t o eliminate food preparation entirely
- to reduce food costs

ACTIVITY 13-14

1. work simplification
2. control
3. time management
4. time schedule
5. fatigue
6. production schedule
7. motions
8. productivity
9. work motions
10. repeating
11. hands, arms
12. plan
13. supplies
14. tools
15. posture
16. work

Work Smarter Not Harder

ACTIVITY 13-15

1. dividing food into servings of equal size
2. cost control
   customer satisfaction
3. a. $ .175
   b. $ .07
   c. $ .0743
   d. $ .06
4. a. 25 portions
   b. 21 steaks
   c. 133 portions
   d. 166 portions

ACTIVITY 13-16

ACROSS

1. sloppy
5. inadequate
6. Servings
7. hot
9. cost control
10. wasted
12. more

DOWN

2. plating
3. bread
4. customers
8. decreased
11. foods

ACTIVITY 13-17

Answers will vary, but may include the following:

a. Three lemon slices: adds color, odd number is more interesting
b. Strawberry: adds color, flavor is compatible
c. Cherry tomato: adds color, flavor is complete
d. Pickle and potato chips: color and texture contrast
e. Parsley flakes: color and texture contrast
f. Sprig of parsley: color and texture contrast
g. Hard cooked eggs, sliced: color and texture contrast

ACTIVITY 13-20

1. Dividing food into servings of equal size
2. cost control
3. a. $ .172
   b. $ .07
   c. $ .021
   d. $ .06
4. a. 25 portions
   b. 21 steaks
   c. 200 portions of 2 meatballs each
   d. 166 steaks

ACTIVITY 13-21

ACROSS

1. sloppy
5. inadequate
6. Servings
7. hot
9. cost control
10. Wasted
12. more

DOWN

2. plating
3. bread
4. customers
8. decreased
11. foods

ACTIVITY 13-22

Answers will vary, but may include the following:

- a. Three lemon slices: adds color, odd number is more interesting
- b. Strawberry: adds color, flavor is compatible
- c. Cherry tomato: adds color, flavor is compatible
- d. Pickle and potato chips: color and texture contrast
- e. Parsley flakes: color and texture contrast
- f. Sprig of parsley: color and texture contrast
- g. Hard cooked eggs, sliced: color and texture contrast

CHAPTER 14

ACTIVITY 14-2

1. coffee
   tea
2. station located in or near the cold food or pantry station where both hot and cold beverages are prepared
3. iced water
4. coffee and some alcoholic beverages
5. coffee and fountain drinks
6. should be held only a short time

ACTIVITY 14-3

1. coffee
2. punch
3. Soft drinks
4. cocoa
5. Fruit juices
6. iced water
7. tea
8. Shakes

ACTIVITY 14-4

1.
   - begin with chilled glasses
   - add ice cubes or crushed ice using tongs or a scoop
   - add iced water from a pitcher containing ice and water at the customer's or from an ice water dispenser
2.
   - use only clean equipment
   - use a clean coffee filter or bag
   - use only fresh coffee
   - use correct amounts of coffee and water
   - use correct temperature of water
   - brew as directed
   - remove grounds immediately
3. mixed with hot water in a cup or pot

4.
- rinse pot with boiling water
- place either tea bags or bulk tea tied loosely in a bag in the pot
- fill the pot with freshly boiled (hot, not boiling) water
- step for three minutes
- remove tea
- preheat tea cups with boiling water
- serve immediately

5.
- prepare hot tea steeped 4-6 minutes at two to three times its usual strength and pour over ice
- pour hot tea concentrate into cold water, or mix instant tea in cold water

ACTIVITY 14-5

1. E
2. I
3. G
4. B
5. F
6. B, D
7. J
8. A
9. D
10. H
11. C

CHAPTER 15

ACTIVITY 15-2

1. D
2. A
3. B
4. E
5. C
6. F

ACTIVITY 15-3

ACROSS

1. soaking
2. velvety
3. filling
6. mayonnaise
7. refrigerated
9. fruit
10. Dry
13. spread
14. Moist

DOWN

1. specialty
4. stale
5. pumpernickel
8. three
11. yeast
12. Quick

ACTIVITY 15-4

1. preparing the parts of the sandwich
   assembling the sandwich
2. twenty-four hours
3. Any four of the following:
   - trays
   - containers
   - Knives
   - spatulas
   - scoops
   - plastic gloves
   - sandwich wraps
   - toothpicks

4. • A right-handed worker should arrange items so the flow of work is from left to right.
   • A left-handed worker should arrange items so the flow is from right to left.
5. in a production line, each worker does certain tasks rather than one worker doing all the tasks.
6. (1.) Take slices of bread from two bread stacks (both hands).
   (2.) Place spread on both slices of bread, using spatula (right hand).
   (3.) Measure one scoop of moist filling. Place in center of bread slice on right (right hand).
   (4.) Spread filling evenly to edges of bread, using spatula (right hand).
   (5.) Cover filling with lettuce leaf (right hand).
   (6.) Cover with other slice of bread (left hand).
   (7.) Cut sandwich diagonally using a sawing motion (right hand)
   (8.) Move plate to center (left hand).
   (9.) Place sandwich on plate (both hands).
   (10.) Add garnish and accompaniments (both hands).

ACTIVITY 15-6

1. $43.50
2. a. stuffed sliced olives, chopped bacon, green pepper strips, radish roses, or carrot curls
   b. parsely, lettuce, tomato slices, celery, carrot sticks, green pepper, cucumber slices, radishes, egg slices, pickles, olives, or relishes
   c. held on top of sandwich with toothpick or placed along side of sandwich
   d. apricot halves or pineapple sticks or rings
   e. French fries, potato chips, potato salad, cole slaw, sauerkraut, stuffed eggs, or sliced tomatoes
   f. moisture-proof wrapping

CHAPTER 16

ACTIVITY 16-2

COMBINATION
ARRANGED
MOLDED

ACTIVITY 16-4

1. base
2. body
3. dressing*

*The activity book is one blank short on this answer.

ACTIVITY 16-5

1. B
2. C
3. A
4. A
5. C
6. B
7. C
8. B
9. A
10. C

ACTIVITY 16-7

1.
    - work quickly, do not overmix ingredients, keep ingredients cold, add dressing as close to serving time as possible
    - place ingredients and tools on workers left
    - arrange salad plates individually on counter
    - use both hands to pick up salad base and place it on plates
    - place body of each salad on its base
    - add dressing and garnish
2. vegetables in interesting shapes
   whole or halved fruits and berries
   black pepper, bacon and ham bits, sunflower seeds, grated cheese, hard cooked eggs, croutons
3. Do not freeze them.
   Discard the leftover chicken salad

CHAPTER 17

ACTIVITY 17-2

1. relishes
2. cocktails
3. Soups
4. canapes
5. spreads and dips
6. salads
7. hors d'oeuvres

COURSE

ACTIVITY 17-4

1. sandwiches
2. base, spread, garnish
3. base
4. Day-old
5. butter, margarine
6. flavor
7. attractive
8. color, shape, flavor
9. untoasted
10. soggy
11. aspic
12. jelly
13. ingredients
14. rolled, ribbon, tea
15. garnish, bread
16. tea
17. Parsley, mint, paprika
18. crustless
19. ribbon

ACTIVITY 17-5

1. H
2. B
3. C
4. D
5. H
6. A
7. E
8. B
9. A
10. G
11. F

ACTIVITY 17-6

1. - Assemble tools, equipment, and ingredients, arranging them in a logical order.
   - Use both hands whenever possible.
   - Complete one step in the assembly before beginning another.
   - Work at a steady, rhythmic pace.
   - Work quickly to keep food out of the temperature danger zone (40° to 140°F)
2. frequent handwashing and the use if plastic gloves
3. Store appetizers covered in the refrigerator at a temperature of 40°F or less. Some can be made in advance and frozen and used as needed. Keep appetizers out of the danger zone (40° to 140°F) as much as possible. Do not let appetizers stand unrefrigerated for more than four hours at room temperature. Cover until served.

CHAPTER 18

ACTIVITY 18-2

1. - Bones and scrapes of meat are simmered in water for several hours to extract their flavor.
   - Vegetables, herbs, and spices are used to flavor the stock.
   - Broth is strained and cooled, and the fat removed.
     refrigerated quickly
2. - A protein food, an acid food, and vegetables are heated in the broth to just below the boiling point.
   - As boiling point is reached, the mixture coagulates (hardens) forming a solid mass called a raft. The raft separates leaving the stock clear.
3. - raw bones and scraps of veal or chicken
   - bones and scrapes of beef which have been browned in the oven first
   - backs, necks, wing tips, feet, and scraps of meat from poultry
   - bones and meat of fish, including fish heads and tails

ACTIVITY 18-3

ACROSS

1. Borscht
2. consomme
3. vichyssoise
4. marinate
5. fruit
6. cream
7. puree
8. roux
9. croutons

DOWN

1. broth
2. convenience
6. cold
10. vegetable
11. gazpacho
12. thick
13. bouillon
14. specialty

ACTIVITY 18-4

1. F
2. T
3. F
4. F
5. T
6. F
7. T
8. F
9. T
10. T
11. T

ACTIVITY 18-5

1. sauce
2. egg sauce
3. tomato sauce
4. brown sauce
5. cream sauce
6. butter sauce
7. white sauce
8. gravies
9. sweet-sour sauces
10. tomato-based sauces
11. mayonnaise-based sauces
12. sugar syrups
13. hard sauce
14. custard sauces
15. whipped cream
16. foamy sauces

ACTIVITY 18-6

1. meats
2. Butter
3. fish
4. gravies
5. hard
6. Tomato
7. sweet
8. Egg
9. Cream
10. purees
11. White
12. salads
13. custard

CHAPTER 19

ACTIVITY 19-2

1. N
2. H
3. G
4. K
5. L
6. F
7. M
8. A
9. C
10. J

ACTIVITY 19-4

1. braising
2. stewing
3. deep-frying
4. saute
5. oven-frying
6. roasting
7. broiling
8. pan broiling

ACTIVITY 19-3

1. fresh meat
   cured meat
   frozen meat
   canned meat
2. inspection and grading
   tenderness
   appearance
3. USDA stamp
   grade stamp or label
4. conformation
   quality
   finish
5. arm or leg section, less tender
   top part of leg or arm, tender
   rib section, tender
   loin section, tender

loin section, tender

6. bright red firm, white fat; marbled; white hard bones, little red in center, pink; little fat, soft bones, slightly red in center
   fresh: grayish pink, soft creamy-white fat; hard, slightly reddish bones; cured; bright pink; deep red; brittle, white fat; soft, reddish bones
7. loosely covered in coldest part of refrigerator, not more than three days
   in the original wrapping in refrigerator, not more than two days
   tightly wrapped in refrigerator
   at 0°F. in their original wrapping
   in a cool dry storage area; canned ham over 1 1/2 lb. in refrigerator
8. Steaks, roasts, chops
9. macaroni, noodles, spaghetti, rice, vegetables

ACTIVITY 19-5

1. Older, younger
2. Fryers
3. Stewing hens
4. Broilers
5. fat
6. Capons
7. less tender

ACTIVITY 19-6

1. whole
2. frozen
3. Fresh
4. Canned
5. inspected
6. approval
7. condition
8. Conformation
9. cleanliness
10. fleshing
11. condition
12. flesh

ACTIVITY 19-7

1. F
2. F
3. T
4. T
5. F
6. T
7. T
8. F
9. T
10. F
11. F
12. T

ACTIVITY 19-8

BROILING
ROASTING
STEWING
FRYING
BRAISING
TRUSSING

ACTIVITY 19-10

1. TROUT
2. CRAYFISH
3. SNAPPER
4. LOBSTERS
5. CRUSTACEANS
7. FINFISH
8. FLOUNDER
9. SHELLFISH
10. SALMON
11. SHRIMP

ACTIVITY 19-11

1. entrails
2. Dressed
3. Steaks
4. Filets
5. butterfly
6. cured
7. canned
8. Frozen
9. fresh, cooked, freeze-dried
10. barrel
11. finfish
12. shellfish

ACTIVITY 19-12

1. bulging, bright clear eyes
   bright red gills
   scales that cling tightly to the skin
   firm and springy flesh
   no dent when skin is pressed
   no disagreeable odor
2. - odorless and firmly attached shell
   - plump and creamy in color in clear and odorless liquid
   - shells should be tightly closed or should close when touched
   - tail should snap back quickly after it is flattened out
   - should be white, creamy white, or pinkish in color
3. main dish of a meal
   appetizer
   main ingredient of soups
4. - should be wrapped in waterproof wrap and placed on top of ice and refrigerated; should be used within twenty-four hours after purchase
   - can be stored in its original package in the freezer or refrigerator; should be kept at 0° F. until it is defrosted
   - should be stored in a cool, dry place; once opened, contents should be placed in a covered container and refrigerated; should be used the day it is opened
5. - kept alive until cooked
   - deveined after cooking
   - should be soaked in salty water for fifteen to twenty minutes, then rinsed repeatedly until they are free of sand
   - open at thinnest part with an oyster knife; insert the tip of the knife where the shell meets. Twist the knife, forcing the shell to open. Cut the muscle holding the clam or oyster to the shell. Place on a bed of ice and refrigerate.

ACTIVITY 19-11

1. D
2. B, D
3. C, A
4. C, G, A, E
5. A
6. H, G, D

8. C, B, A, G, D
9. A, I, D
10. B, D
11. G, E

CHAPTER 20

ACTIVITY 20-2

1. air cell
2. bloom
3. yolk
4. chalaza
5. shell
6. albumen

ACTIVITY 20-3

A. 3
B. 2
C. 1

ACTIVITY 20-4

1. T
2. F
3. F
4. T
5. T
6. F
7. F
8. F
9. T

ACTIVITY 20-5

1. fried eggs
2. Quiche, crepes, and souffles
3. hard cooked eggs
4. omelets
5. Answers will vary but may include any three of the following:
   stock, meat, loaf, salmon croquettes, mayonnaise, puddings, custards, sauces, cutlets, fish fillets, angel cakes, meringues

ACTIVITY 20-6

1. clarifier
2. thickener
3. binder
4. leavening
5. emulsifier
6. coating

ACTIVITY 20-7

1. canapes
   salads
   cream sauces
2. Eggs Benedict - served on a toasted English muffin with a slice of Canadian bacon and topped with Hollandaise sauce
   Western Style Poached Eggs — served with spicy tomato sauce
   Eggs Floretine — served on a nest of cooked spinach topped with cheese sauce
   Eggs Mornay — baked in cheese sauce and sprinkled with grated cheese
   Scrambled Eggs — made from beaten eggs and served with any of a variety of garnishes
   Omelets — cooked in a saute pan and garnished with parsley, pimento, asparagus spears, or a variety of other foods

ACTIVITY 20-7

3. Fresh eggs - should be kept in refrigerator until used, may be kept for weeks if kept at temperature of 40-55°F.
   Dried Eggs - keep tightly covered in refrigerator and use as soon as possible.
   Cream, custard, or meringue pies - refrigerate immediately after preparation

ACTIVITY 20-9

1. D
2. C
3. B
4. A

ACTIVITY 20-10

1.
   - must be selected for their intended use
   - if for cooking, cheese should be meltable, blendable, have a definite cheese flavor, become soft and smooth when heated, and blend easily; texture should be appropriate for item being prepared; flavor should be definite but not overpowering
2. natural
   process
   pasteurized
3. flavor, texture, appearance, and color
4. Answers will vary, but may include any of the following:
   - canapes, in dips, or spread on raw vegetables or crackers
   - cheese pies, cakes, fancy frozen or gelatin desserts, and fruit and cheese trays
   - cold foods, soups, sauces, and hot dishes
   - Welsh rarebit, cheese souffle, cheese fondue, lasagna, pizza, cheese omelet, quiche, macaroni and cheese
   - grilled vegetables or hamburgers, casseroles, cream sauces, and soups
5. cut with a knife or cheese cutter into slices, trips, or chunks, or may be grated or softened
6.
   - cook at low temperature for a short time
   - cut into small pieces so that it will melt quickly and blend with other foods
   - shred, grate, or slice cheese before adding it to other foods
   - cut process cheese into slices
7. tough and stringy and may cause the fat to separate and drain from the cheese
8. Store tightly covered or wrapped in the refrigerator.
9. cream cheese

ACTIVITY 20-11

1. Soft-cooked
2. Hard-cooked
3. discoloration
4. deviled
5. Fried
6. firmness
7. Sunny-side up
8. Over-easy
9. Hard-fried
10. Basted
11. oven-fried
12. Poached
13. vinegar
14. Eggs Benedict
15. Baked
16. Eggs Mornay
17. Scrambled
18. tenderness
19. watery
20. braiser
21. omelet
22. plain
23. fluffy
24. folding

CHAPTER 21

ACTIVITY 21-2

1. Grains
2. cereal
3. pastas
4. bran
5. endosperm
6. germ
7. unrefined
8. Refined
9. enriched
10. fortified
11. weight
12. Brown
13. White
14. Converted
15. Coated
16. Wild
17. durum
18. tubes
19. instant
20. rice

CHAPTER 22

ACTIVITY 22-2

Pomes: apples, pears, quince
Drupes: apricots, peaches, plums
Berries: grapes, strawberries, blueberries
Citrus fruits: grapefruits, lemons, oranges
Melons: cantaloupes, honeydews, watermelons

ACTIVITY 22-3

Root: carrots
Bulb: onions
Stem: asparagus
Leaf: lettuce
Flower: broccoli
Pod/Seed: beans
Fruit: tomatoes
Strong flavor: turnips
Mild flavor: peas

White: cauliflower
Yellow: corn
Green: spinach
Red: beets

High moisture content: zucchini
Low moisture content: squash
Dry: lentils

ACTIVITY 22-4

1. Fresh
2. Canned
3. Frozen
4. Dried

CLUES

1. dehydrated
2. balancing
3. botulism
4. legumes
5. carton
6. crate
7. flat
8. lug

ACTIVITY 22-5

1. Answers may vary, but may include any three of the following:
    - vegetables: accompaniment to a main dish; main dish; in soups, salads, snacks, and desserts; appetizers, garnishes
    - fruits: appetizers, snacks, salads, desserts; accompaniments to other foods: in soups, breads, sauces, beverages, desserts; garnishes
2. so the nutrient loss will not be great (since vitamins and minerals are concentrated just under the skin)
3. wash them thoroughly in cold water and pat them dry with a cloth or paper towel; wrap the clean, dry vegetables in a clean towel and place them in the refrigerator crisper to chill, or putthe wrapped greens in a plastic bag and store on a refrigerator shelf.
4. dicing— cut into cubes
   mincing — chopping very fine
   shredding — cutting into thin strips
   slicing —cutting across or at an angle
5. by sprinkling the cut surface with an acid fruit juice such as lemon or lime
6.
    - Cook in as little water as possible, for as short a time as possible.
    - Cook only until they are just tender.
    - Cook in small quantities as close to serving time as possible.

ACTIVITY 22-6

1. T
2. F
3. T
4. F
5. F
6. T
7. F
8. T
9. T
10. F

ACTIVITY 22-7

X
X
___
X
___
X
___

X
___
___
X
X
X
___

ACTIVITY 22-8

X
X
___
X
___

ACTIVITY 22-9

1. refrigerator
2. ice
3. served
4. Leftover
5. sauces
6. Lemon
7. thawed
8. Canned
9. discarded
10. refrigerated

CHAPTER 23

ACTIVITY 23-2

1. C
2. B
3. D
4. A
5. C
6. D

ACTIVITY 23-3

A-2
B-7
C-18
D-12
E-8
F-5
G-11
H-15

I-13
J-17
K-6
L-3
M-16
N-10
O-4
P-9

MAGIC TOTAL 39

ACTIVITY 23-4

Breakfast: toast, pancakes, waffles, muffins, biscuits, plain doughnuts, sweet rolls, English muffins, croissants, coffee cake

Lunch or Dinner: biscuits, muffins, cornbread, tortillas, crepes, freshly baked rolls or bread, garlic bread, toast points, popovers, bread cubes, pizza

Dessert: gingerbread, coffee cake, short cakes, fruit cobbler

ACTIVITY 23-5

1. pastries
2. commercial
3. warmth
4. moisture
5. refrigerator
6. stale

ACTIVITY 23-6

1. Answers may vary but may include any of the following:
   - muffins: uniform shape; lightly rounded, pebbly tops; golden brown color; tender texture; even grain; no big holes or tunnels; good flavor
   - waffles/pancakes: uniform shape; evenly browned crust; tender texture; moist crumb; good flavor
   - Popovers: well-popped; golden brown crust; hollow inside; walls crusty, tender, crisp; good flavor
   - Biscuits: uniform size and shape; flat, level tops; crisp, evenly browned crust; tender and moist; flaky, tender texture; good flavor
2. Muffin method:
   (1) Dry ingredients and liquid ingredients are mixed separately, then combined.
   (2) Mixture is stirred just enough to moisten dry ingredients.
   (3) Batter should appear lumpy
   Biscuit method:
   (1) Dry ingredients are combined first.
   (2) Fat is cut into the flour.
   (3) Dough is stirred until all of the flour is moistened.
   Cake method:
   (1) Shortening is creamed with sugar and eggs.
   (2) Sifted dry ingredients are added alternately with the liquids.
   (3) Flavorings, nuts, and fruits are folded in last.
3. popovers: muffin method
   coffee cake: cake method
   pancakes: muffin method
   biscuits: biscuit method
   nut loaves: cake method
4. (1) measuring
   (2) mixing
   (3) kneading
   (4) fermenting
   (5) punching
   (6) resting
   (7) makeup
   (8) panning
   (9) proofing
   (10) baking
5. Appearance: smooth, golden brown color, with a well rounded top without cracks. The sides should be straight and a little lighter in color than the top.
   Crust: thin, but tender or crunchy, depending on the kind of bread
   Grain: fine, free of tunnels, with no large gas holes
   Bread should be tender and moist.
6. straight-dough method: all ingredients are combined and the dough is kneaded and set aside to rise
   sponge-dough method: yeast is combined with part of the liquid, flour, and sugar to make a batter. The batter is covered and allowed to rise in a warm place until light and bubbly. The remaining ingredients are added to make a stiff dough.
   batter method: dough is mixed and shaped, but not kneaded. After shaping, it is allowed to rise only a short time.

7. Plain loaf:
   (1) scale or divide into pieces that will fit about half a bread pan
   (2) roll into flat rectangular pieces
   (3) fold into thirds
   (4) seal edges with fingers
   (5) pat until it will exactly fit the pan

   Braided loaf:
   (1) weigh or cut equal chunks of dough
   (2) sprinkle with flour
   (3) roll each chunk into long thin roll
   (4) place three rolls side by side
   (5) cross the strips
   (6) alternate outside strips till braid is finished
   (7) seal the ends

   Plain rolls:
   (1) form long thick rounded strip
   (2) cut strip into equal chunks weighing 11/2 oz. each
   (3) round each chunk

   Cinnamon rolls:
   (1) roll a square or rectangle of dough
   (2) sprinkle with cinnamon and sugar
   (3) roll into log shape
   (4) brush or wash dough with a mixture of egg and water
   (5) cut into slices about 1/2 inch thick

   Danish Pastries:
   (1) roll dough into a rectangle about 1/2 inch thick
   (2) spread two-thirds of the dough with a special roll-in shortening
   (3) fold unspread portion over the center section
   (4) fold remaining section over the two-folded sections
   (5) refrigerate the sough for 20-30 minutes to slow or retard the growth of yeast
   (6) cut dough into 10 ounce pieces
   (7) roll each section about 8 inches long
   (8) wash dough with water or an egg white and water mixture
   (9) spread dough with filling of almond or fruit paste
   (10) roll up dough and cut into 1 inch rolls

8.
   - shortenng, sugar, salt, and flavorings are creamed or mixed together until fluffy
   - liquid milk or dry milk solids are added and the mixture is creamed again
   - eggs are added one at a time and beaten on medium speed
   - yeast may be softened and added to milk mixture or dry yeast may be mixed with last addition of flour
   - dough is kneaded for several minutes at medium speed.

CHAPTER 24

ACTIVITY 24-2

1. B
2. E
3. A
4. F
5. C
6. D
7. A
8. C
9. F
10. B
11. C
12. E
13. A
14. D
15. B
16. F
17. A
18. D
19. C
20. B

ACTIVITY 24-3

1. fresh fruits:
   processed fruits (canned, dried, and frozen products)
   mixes for puddings, custards, pie fillings, pastry, cakes, and gelatin
   frozen or ready-to-eat baked desserts
   frozen ice cream
   ice milk, ices, sherberts
2. baked apples: may be baked whole
   gelatin dessert using flavored gelatin and fresh fruits:
   - dissolve gelatin in boiling hot water
   - add remaining water cold or in the form of shaved ice for a quick set:
   - pour into a shallow pan or mold and refrigerate until partly set
   - stir in the chopped fruit and pour into a mold
   - refrigerate until set

   pudding made on top of the range:
   - mix thickener, sugar, salt, and milk together first
   - cook over medium heat until thick
   - stir constantly if pudding is cooked in a saucepan
   - stir occasionally if pudding is cooked over hot water in a double boiler
   - add slightly beaten eggs to part of the hot mixture, then add the egg mixture to the rest of the hot mixture
   - cook for about three minutes

   baked custard:
   - scald milk in double boiler over low heat
   - beat eggs slightly and add sugar, salt, and cornstarch
   - mix small amount of cold milk with the eggs
   - pour egg mixture into hot milk stirring constantly
   - pour mixture into a butter baking dish or custard cups
   - sprinkle top with grated nutmeg
   - set baking dish into a larger pan of boiling water
   - bake in oven for one hour at 325°F
3. in a well of cold, running water

ACTIVITY 24-4

1. caramel or fruit sauce
2. whipped cream, ice cream, fruit sauce, or hard sauce
3. whipped cream or soft custard
4. chopped nuts or dessert sauce
5. fresh fruits
6. chocolate shavings, whipped cream, or chopped nuts
7. cherry or fresh strawberry
8. fruit topping, whipped cream
9. whipped cream

ACTIVITY 24-5

1. because they require at least four hours to set firmly
2. to prevent absorption of odors and tastes
3. covered and refrigerated
4. temperatures below 0°F
5. 8-15°F

ACTIVITY 24-6

Bar: very soft; dough is spread in a pan and baked. After baking, the cookies are cut into squares, rectangles, or triangles.

Drop: semi-soft; dough is pushed from a scoop onto a baking sheet.

Rolled: stiff; dough is rolled into a thin sheet and cut into various shapes with cookie cutters

Refrigerator: stiff; dough is pressed with hands into a long smooth roll and chilled before baking. Dough is sliced to form cookies.

Pressed: rich, stiff; dough is forced through a cookie press or pastry tube to form various shapes.

Molded: stiff; a small amount of dough is shaped and molded with the fingers into the desired shape.

ACTIVITY 24-7

ACROSS

1. foam
3. stiff
4. shortening
7. flour
10. icing
11. eggwash
13. greased
15. eggs
16. canvas liner
17. waxed
18. molded

DOWN

2. muffin
4. Soft
5. refrigerated
6. less
8. powdered
9. Bar
12. sugar
14. Rolled
19. drop

ACTIVITY 24-8

1. Agree
2. Agree
3. Disagree-Many food service establishments purchase cookies from a bakery rather than prepare them from scratch.
4. Disagree-Cookies are served at room temperature
5. Agree

CHAPTER 25

ACTIVITY 25-2

1. Shortened cakes are cakes with shortening and chemical leaveners. Foam cakes are those which use eggs as leaveners and do not contain shortening.
2. • Angel food — very white cakes because only the egg whites are used
   • Sponge cakes — golden yellow cakes because they contain a large quantity of egg yolks
   • Chiffon cakes — light textured, tender, and moist
3. desserts
   snacks
   special occasions (birthdays and weddings)
4. fresh or frozen commercially baked cakes prepared cake mixes
5. • dry ingredients, including dry milk, and fat
   • liquid ingredients and flavorings are added before baking

ACTIVITY 25-3

1. gluten
2. cracks
3. volume
4. butter
5. fall
6. eggs
7. sugar
8. moisture
9. soggy
10. shelf
11. tough
12. leavener
13. flour
14. shortening
15. cake
16. ingredients
17. little
18. sponge
19. coarse
20. milk
21. buttermilk
22. flat
23. formulas
24. quality

ACTIVITY 25-4

1. creaming or conventional method
   (1) cream softened fat and sugar
   (2) Beat eggs into creamed mixture.
   (3) Sift dry ingredients together and add alternately with the milk to the creamed mixture, beginning and ending with dry ingredients.
   (4) Mix until well blended, scraping bowl down at least once.
   blending method
   (1) Sift ingredients together in a mixing bowl.
   (2) Add shortening and blend with dry ingredients.
   (3) Blend, then scrape the bowl.
   (4) Add remaining liquid and blend, scraping bowl as needed.

2. Angel food
   (1) Sift half of sugar together with flour four times.
   (2) Beat egg whites until frothy.
   (3) Add cream of tartar, salt, and beat egg whites until stiff.
   (4) Gradually beat into the egg whites the remaining half of sugar, and blend in flavorings.
   (5) Fold flour-sugar mixture into the egg whites by hand until the flour disappears.

   Sponge cakes
   (1) Beat eggs, then beat the sifted sugar into the eggs
   (2) Melt margarine in the heated milk
   (3) Sift flour, baking powder, and salt together twice.
   (4) Add dry ingredients alternately with the milk to the egg mixture, beginning and ending with the dry ingredients.

   Chiffon cakes
   (1) flour, half of the sugar, the baking powder, and salt are sifted into mixing bowl
   (2) In order, add the oil, egg yolks, water and flavoring, mixing until just blended.
   (3) In a clean bowl, beat egg whites and cream of tarter on high until soft peaks are formed.
   (4) Gradually beat the remaining half of the sugar into the egg whites until stiff packs are formed.
   (5) Pour the flour-liquid mixture into the egg mixture and fold until blended.
3. Shortened cakes
   (1) Use pan size and shape indicated in recipe.
   (2) Use oblong pans for single layers or round pans for multiple layers.
   (3) Grease pan on bottom and side or line with silicone treated paper.
   (4) Fill pan with batter. (Will have to use spatula to spread thick shortened cake batter.)
   (5) Rap pan sharply on the work surface to eliminate any air bubbles.

   Foam cakes
   (1) Use pan size and shape indicated in recipe
   (2) Bake in tube pans (Sponge cakes also can be baked in oblong pans.)
   (3) Leave pan ungreased, except for sponge cakes
   (4) Pour batter into pan carefully, turning the pan to even the batter.
   (5) cut thorough batter with a knife or spatula to expel any air bubbles
4. Arrange pans so they do not touch each other or the sides of the oven.
   Stagger the position of the pans.
   Avoid placing one directly above the another.
5. • Crust will be golden brown.
   • Cake will shrink away from sides of the pan.
   • Toothpick a wire tester inserted into the middle of the cake will come out clean.
   • Cake will spring back when touched lightly with the finger.
6. shortened
   (1) Remove from pan while still warm (run a spatula or knife around the edges to loosen; turn cake out on a rack; remove silicone liner if used; turn cake right side up on another rack; allow cake to cool completely)
   (2) Wrap in moisture proof wrappings before storing in refrigerator or freezer.

Foam
(1) Cool upside down in pan on a rack.
(2) Turn legs on tube pan down to raise pan while cake cools.
(3) Allow cake to cool completely before removing it from pan.
(4) Wrap in moisture proof wrappings before storing in refrigerator or freezer.

ACTIVITY 25-5

1. E
2. F
3. D
4. A
5. H
6. B
7. C

ACTIVITY 25-6

Sheet cakes:
- If cake is left in pan, only the top is frosted.
- If cake is removed from the pan, frost sides then the top.

Cupcakes:
- Hold one cupcake in each hand and dip it or twirl it in a bowl of frosting or swirl the frosting by using a spatula.

Layer cakes:
(1) Place first layer top down; spread filling or frosting evenly to the edge; place second layer on top of the first, right side up; place the top layer on the cake, bottom side down. (The outside of the cake may be iced with a simple icing and chilled until the icing is hard before frosting)
(2) Frost sides of the cake first, working from bottom to top; then frost the top.

Tube cakes:
- may be frosted on the top, on the sides only, or all over

ACTIVITY 25-7

1. F
2. E
3. D
4. B
5. A
6. C

ACTIVITY 25-10

1. a. pastillage— gum paste used for making flowers, candies, and other fancy decorative pieces.
   b. marzipan — almond paste used as a foundation for royal icing in wedding cakes and birthday cakes
2. a. pastillage
   (1) Dust hands, work surface, rolling pan, and models with cornstarch.
   (2) Work small piece of gum paste with your hands till it is smooth.
   (3) Roll out paste with a rolling pin.
   (4) Place a pattern on gum paste and cut around it with a sharp knife

   (5) Let the piece dry
   (6) If using a mold, lightly push gum paste into a mold, the remove and place to dry.
   (7) When pieces are almost dry on the top side, turn so they can continue to dry.

2. b. marzipan
   (1) color the marziopan with food coloring, adding a tiny bit at a time.
   (2) knead to work in the color.
   (3) Roll some of the marzipan out on a board and cut into small pieces.
   (4) After cutting the pieces out, mold each piece into the desired shape.
   (5) Make a basic shape then mold to the shape needed.
3. (soft sugar work) working on grease proof or wax paper, outline the design with icing and then fill in with soft icing, work fast to keep the outline icing drying out
4. a. script
   b. printing
   c. block letters
   d. double letters
5. thin consistency (so it will flow easily)
6. • shape of the cake
   • richness of cake, the occasion, and number of servings needed.
7. wedge — shaped or straight slices
8. squares, rectangles, or diamond shapes
9. for-like cutter (cake divider)

CHAPTER 26

ACTIVITY 26-2

ACROSS

1. two crust
3. deep dish
4. fruit
6. pastry shells
8. soft filled
12. horns
14. crullers
15. pastry

DOWN

2. cream puffs
5. Napoleons
7. single crust
9. turnovers
10. eclairs
11. tarts
13. quiche

ACTIVITY 26-3

(Any two under each category)

MAIN DISHES	APPETIZERS	DESSERTS
quiche	cream puffs	pies
tart shells	patty shells	tarts
turnovers	tarts	turnovers
	turnovers	cream puffs
		eclairs
		Naploeons

ACTIVITY 26-4

mixes
frozen doughs
uncooked and precooked pie crusts

ACTIVITY 26-5

1. pie crust
2. choux paste
3. puff paste

ACTIVITY 26-6

1. Pastry
2. water
3. Shortening
4. Eggs
5. sugar
6. puff
7. splitting
8. Confectioner
9. Salt
10. choux
11. Bread
12. flakier
13. cold
14. yolks
15. tender
16. shrink
17. tough

ACTIVITY 26-7

1. procedure in which shortening and flour are mixed until lumps the size of small pans are formed throughout the mixture
2. resting, rolling, and panning
3. (1) Fold Dough under even with the edge of the pan.
   (2) Finish the edge by pressing the edge between the index finger and the thumb of one hand and the index finger of the other hand.
   (3) Repeat all around the pie, making a wavy (fluted edge).
4. (1) Place bottom crust in the pan, but do not dock.
   (2) Add filling.
   (3) Moisten edge of bottom crust with water
   (4) Fold top crust in half.
   (5) Cut several slits on crust with a knife.
   (6) Seal top and bottom crusts by fluting.

5. one-crust pie: 425°F, 10 to 12 minutes
   two-crust: 400-425°F, 15 minutes
   frozen pie: 425°F, 45-50 minutes

ACTIVITY 26-9

1. E, G
2. A, F
3. H, I
4. B, D
5. C

ACTIVITY 26-10

1. old-fashiond method
   hot-juice method
   cold-juice method
2. any one of the following:
   - old-fashioned method — fruit is mixed with the sugar, thickener, and flavorings
   - hot-juice method — Fruit juice is cooked with waxy maize until it produces a clear gel. The thickened juice is cooked slightly and poured over the fruit.
   - cold-juice method — fruit juice is thickened with instant starch; mixture is stirred until thick, then mixed with the fruit
3. (1) Blend cornstarch, sugar, and salt with cold water or milk before adding it to the hot liquid
   (2) Cook mixture to thicken.
   (3) Mix a little of the hot mixture with eggs before adding them to the rest of the hot liquid.
   (4) Cook mixture only about three more minutes to cook the eggs.
4. folding whipped cream or beaten egg white into a cream filling.
5. milk and egg mixture, which uses only eggs as the thickener (filling and pie shell are baked together)
6. meringue
   whipped cream
7. meringue — beat egg whites until foamy; beat eggs until they stand in soft peaks; gradually add sugar, beating until sugar is dissolved
   whipped cream — place cold cream in cold bowl and whip on medium speed until it forms picks; sweeten with powdered sugar, and flavor with vanilla

ACTIVITY 26-11

1. T
2. T
3. F
4. T
5. F
6. F
7. T
8. F
9. T

CHAPTER 27

ACTIVITY 27-3

Paragraph should include the following reasons:

- little choice about where to eat
- convenience
- variety
- entertainment
- companionship
- prestige
- celebration

People expect: a pleasurable experience, personal attention, good food, and a pleasant, relaxed atmosphere

ACTIVITY 27-4

1. Smile to show friendliness.
2. Lean forward to show friendliness.
3. Walk purposefully to show work efficiency.
4. Maintain eye contact.
5. Speak clearly with warmth and enthusiasm.

ACTIVITY 27-5

NOTE: The following answers are here as a guideline. Students' answers may vary according to their interpretation of how to "best" handle each given situation.

1. Remain courteous toward the customer, apologize, and exchange it without a fuss.
2. It is not the waiter's or waitress' place to ask guests to be quiet when they "get out of hand." Complaints should be reported to the manger or headwaiter so that the situation may be handled appropriately.
3. Lead the customer to the table on your left arm, not touching the person's cane or guide dog. Remove unnecessary clutter and move condiments closer to the guest. After presenting the menu to the guest, quietly describe menu items and prices, speaking in a pleasant normal voice. When serving, quietly announce what you are putting on the table.
4. Apologize and offer to seat the gentlemen at another table. Be aware of the establishment's policy regarding special requests, and be willing to make suggestions for alternatives.

5. Provide a table out of the line of traffic, and place children where they cannot see other guests. This will help prevent distractions. Be aware of foods in which portions may be split and the children's dishes which are available. Provide cookies or crackers to keep children happy until the food arrives.

ACTIVITY 27-6

NOTE: These answers are given to act as a guide. Student's answers may vary since they require individual thought.

1. Ask the customer if they would like to be seated in an area where they can be given service more quickly, such as at the counter. If not, explain as accurately as possible how long their order will take. Suggest items to the customer that are already prepared.
2. Alert the headwaiter, hostess, or manager; do not try to handle and individual in this situation by yourself.
3. Do not appear annoyed, upset, or in a hurry. Listen carefully, handle the complaints you can and report the complaints you can't handle to the mange
4. Do not appear irritated or try to rush the customer. Make suggestions or give the customer more time to decide while promising to return soon.
5. Avoid getting involved in long conversations and going near the table except to provide needed services. Try to be good natured and remain courteous. If an individual gets out of line report it to the manager.
6. Quietly assist by removing a chair so there will be plenty of room at the tale for the wheel chair.

ACTIVITY 27-7

1. getting stories and announcements in newspapers and on radio and television, sponsoring club meetings at the restaurant, and extending invitations to special groups.
2. it is designed to present the food served by the restaurant in the most effective way possible
3. Know as much as possible about the menu. (the day's menu, choices offered, the prices, how the dishes are prepared, the ingredients used, and the meaning of commonly used foreign menu terms.
4. a la carte — each food item is priced separately
   table d'hote — complete meals at set prices
5. BREAKFAST MENU — fruits and juices, cereals, eggs, breakfast menus, breads and rolls, and beverages
6. LUNCHEON MENU — salads, sandwiches, or soups (appetizers, salads, sandwiches, entrees, vegetables, desserts, and beverages)

DINNER MENU — (vary according to the type of food service) appetizers, soups, salads, entrees, vegetables, desserts, and beverages

ACTIVITY 27-8

1. B
2. B
3. B
4. A
5. B
6. B

ACTIVITY 27-9

1. D
2. E
3. B
4. C
5. F
6. A

ACTIVITY 27-10

FRUITS — chilled, fresh, juicy, ripe, luscious
BREAD — baked, crusty, fluffy, freshly baked, golden brown, homemade, hot, light, sweet
VEGETABLES — bland, buttered, crisp, fresh, golden, green, hot, succulent, tender
CAKE — chocolaty, light, moist, rich, sweet, tender

ACTIVITY 27-11

1. - Know what your duties are and how to perform each task quickly and correctly.
   - Complete pre-service duties before serving hours.
   - Plan ahead and never return to or leave the kitchen empty handed.
   - Refill water glasses and coffee cups for several table in one trip.
2. Loading — Balance the items on trays carefully-never overload the trays. This will prevent breakage and spillage.

   Carrying — Carry on shoulder with greatest weight near the shoulder. Main dishes should be placed at 5, 6, and 7 o'clock positions on tray with lighter dishes at 3 and 9 o'clock. Other light-weight items can be placed at 12:00.
3. It makes more time available for serving customers.
4. - keeping perishable food refrigerated; foods should not be wasted
   - taking orders accurately
   - paying attention to portion control
   - recovering and reusing food items in service containers that have not been touched by customers.
5. - avoiding mistakes on guest checks in adding, computing sales tax, and giving change.
   - avoiding employee dishonesty

CHAPTER 28

ACTIVITY 28-2

1. Sidework includes all the duties assigned to food service personnel in addition to service duties.
2.
   - Clean the dining room and put everything in its place.
   - Clear dishes, flatware, and table coverings.
   - Appropriately store clean dishes, glassware, and flatware.
   - Clean tables, chairs, and other surfaces.
   - If tables are not to be reset, place chairs with the seats resting on the table.
   - Clean containers and properly store perishables.
   - Clean and refill condiment containers.
   - Wash pitchers and ice buckets placing them upside down to dry.
   - Store usable table flowers in the walk-in refrigerator.
   - Clean side and booster stands.
   - Disconnect electrical appliances.
   - Shut off gas equipment.
   - Restock matches, toothpicks, napkins, dishes, cups, and flatware.
   - Lock pantry, cabinets, and refrigerator.
3.
   - Turn on lights and gas or electrical appliances.
   - Perform sidework duties.
   - Inspect dishes, glasses, and flatware.
   - Check tables, counter tops, chairs, and stools for alignment and cleanliness.
   - Set table with clean linens or placemats, flatware, dishes, and glassware.
   - Make sure condiments are ready for use.
   - Place flowers that have been checked for freshness on the table.
   - Stock the service stands.
   - Make sure warning unit in service stand works properly.
   - Fill ice bins, and make coffee.
   - Make sure necessary food items are brought from the kitchen.
4.
   - Replenish service stands.
   - Check for supplies that are getting low.
   - Keep the service stand neat and clean.
   - Clean and reset tables as needed.
   - Clean up food and beverages that have been spilled.
   - Clean condiment containers as needed.

ACTIVITY 28-3

1. setting and resetting tables
2. cleaning and dining room
3. inspecting, cleaning, and polishing serviceware

.managing service stands

ACTIVITY 28-4

1. • Dishes should be inspected to be sure they are clean, not streaked, and not chipped. Dirty dishes should be returned to the dish room. Streaked dishes should be wiped with a clean moist cloth. Chipped or cracked dishes should be removed and reported to management.
   - Glassware should be checked for cleanliness, especially for lipstick stains. Dirty glasses should be returned to the dish room. In hard water areas, glasses may have to be dipped in warm water then dried with a linen cloth or a special glass polishing cloth to remove water spots.
   - Flatware should be inspected for cleanliness. Check between tines of forks for food which was not removed by washing. Return any dirty flatware to the dish room.
2. Setting — clean linens or place mats should be used; tabletop items should be placed, filled, and cleaned as directed; individual covers should be placed on each table

   Resetting — reset without disturbing nearby guests; replace place mats or tablecloth; reset the individual covers as appropriate for the meal, handle the serviceware without touching food contact surfaces
3. dusting — use square yard of cloth folded to a 9-inch square (as cloth becomes soiled, turn over to a clean side or refold it to a clean side); begin dusting at the entrance and work around the room; dust high surfaces first, then low ones, working downward. Use long strokes. Move objects and dust under them.

   sweeping — use dry treated dust map; start sweeping at one end of the dining area and work toward the door; push dust mop ahead of you in a straight line; lift the dust mop at the end of each stroke, but do not tap it on the floor; overlap each stroke; continue in parallel lines until the entire area is cleaned.

   vacuuming — assemble vacuum cleaner; start in farthest corner of the room or area; vacuum using a back-and-forth motion; empty the vacuum bag when it is half full; continue until the area is completed; replace any furniture moved during vacuuming

4. dishes, glasses flatware, ashtrays, flower vases, linens, cleaning cloths, towels, bread baskets, tongs, serving utensils, containers, place mats, napkins, dollies, coasters, straws, matches, toothpicks, and eating utensils

CHAPTER 29

ACTIVITY 29-2

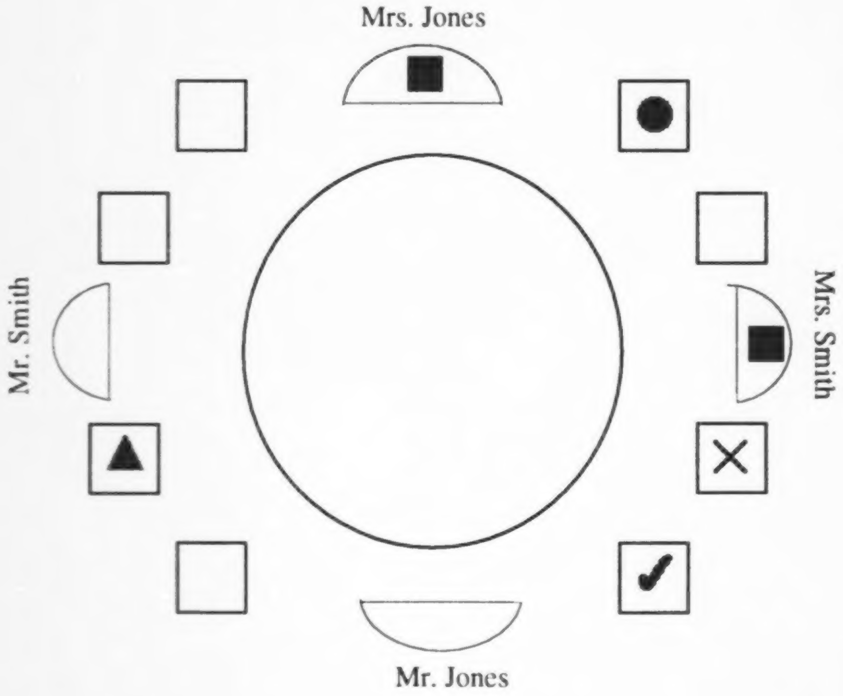
1. counter service — person behind the counter takes the customer's order, serves the food on a tray or in a take-out bag, and takes the money
2. trayline service — use of trays to transport menu items from the kitchen or serving area to the dining room

3. seated service — a combination of traditional type services (American, French, Russian, English, buffet, banquet, and combination service) is characteristic of most restaurants that have an extensive menu that offers a wide number of choices to the customer.

ACTIVITY 29-3

1. B
2. D, H
3. E
4. F, G
5. A
6. C

ACTIVITY 29-4



ACTIVITY 29-5

1. salad plate
2. butter plate
3. dinner fork
4. dinner fork
5. dessert fork
6. dinner plate
7. napkin
8. water glass
9. dinner knife
10. butter knife
11. teaspoon
12. soup spoon

ACTIVITY 29-6

1. standard dinner setting
2. standard breakfast
3. standard luncheon setting

ACTIVITY 29-7

1. Both forks should be placed to the left of the cover.
2. Knives should be next to the cover on the right side.
3. Cutting edges of knives should be toward the center of the cover.
4. Spoons should be placed to the right of the knives.
5. Water glasses should be placed to the right of the water glasses.
6. Coffee cups should be placed to the right of the water glasses.
7. Coffee cup handles should go toward the outside.
8. Napkins should go to the left of the plate or stand in the center of it.

CHAPTER 30

ACTIVITY 30-2

1. a. "Good morning, party of two?"
   b. "Good afternoon, I'll be with you in just a moment."
2. a. The reservation is checked off in the reservation book and the party is escorted to the assigned table.
   b. The greeter asks how many persons are in the party, then selects an appropriate table for the guests.
3. a. preferences
   b. age
   c. size party
4. a. (a young lady) — in a party of two
   b. (the eldest lady) — in a larger party
5. a. a blind person — Inform them of anything unexpected, such as a step, or a napkin in a water goblet.
   b. guests with wraps or parcel — Offer to "check them" or place them where they will be out of the way.

ACTIVITY 30-3

1. where — seat them away from quieter guests
   why — so they won't disrupt other guests
2. where — seat them where there is a safe place for a high chair
   why — so it does not interfere with passage in a aisle or around a table where accidents could occur

ACTIVITY 30-4

1. Wait until all guests are seated before presenting menus.
2. Menus are given to the guests from the left.
3. Present the menu open or closed according to the restaurant's policy.
4. When serving a couple present the menu to the woman first.
5. When serving a group, present the menus beginning with the person to the right of the host or hostess and proceed counterclockwise around the table.
6. Before offering the menu, offer to help the guests with their napkins only if they are in the way.
7. While guests study the menu, busy yourself by removing or adding extra place settings as needed, filling water glasses, or placing bread and butter on the table.

ACTIVITY 30-5

1. PRONUNCIATION
2. DESCRIPTION
3. DAILY SPECIAL
4. POLICIES
5. PREPARATION TIME
6. ACCOMPANIMENT
7. IN SEASON ITEMS
8. DAILY SOUP

HINT: CORRECT ANSWER

ACTIVITY 30-6

1. First complete general information on the guest check.
2. Use a system to record location of person receiving order.
3. Write clearly according to restaurant order.
4. Make sure order can be read by person in the kitchen.
5. Clarify order with guest before recording it.
6. Find out what the customer wants.
7. Record it using abbreviation codes clear to everyone.

ACTIVITY 30-7

1. BBQ - barbecue beef
2. C Burg - cheese burger
3. Chef Sal - chef salad
4. Chow - clam chowder
5. Cof-coffee
6. col-cole slaw
7. ff-French fries
8. FChix - fried chicken
9. FrC - fruit cocktail
10. GC - grilled cheese
11. mash - mashed potatoes
12. OJ - orange juice
13. PC - pork chops
14. ShC - shrimp cocktail
15. T -tea
16. Ts - Tuna salad

ACTIVITY 30-8

1. Summarize the order.

2. a. Order called in directly or over intercom
   b. Written order placed on a spindle
   c. Order read aloud by designated kitchen employee
   d. Computerized ordering device is used
3. (promptly) as soon as possible
4. that the orders should be prepared at the same time
5. a. Check with the kitchen to make sure order has not been misplaced.
   b. Reassure the customers that they have not been forgotten.

ACTIVITY 30-9

1. A
2. A
3. I
4. A
5. P
6. I
7. A
8. I
9. I
10. A
11. I
12. A
13. I
14. A
15. P

ACTIVITY 30-10

Breakfast	Lunch	Dinner
4 Total # 1 15	4 Total #2 22	4 Total #3 17
6	3	9
2	7	1
7	2	7
3	1	2
5	9	5
1	10	3
	6	6
	5	8
	8	

ACTIVITY 30-11

1. Serve woman first.
2. Serve the lady on the host's right first, the other lady, the other gentleman, and then the host last.
3. Serve ladies on the right and left of the host, gentlemen on the right and left of the host, hostess, and then the host.
4. Serve person on the host's right, then guests counter clockwise.
5. Serve older before younger, ladies before gentlemen, and children after ladies.

ACTIVITY 30-12

1. left
2. right
3. right
4. right
5. right
6. right
7. upper
8. lowered

ACTIVITY 30-13

1. right
2. booth
3. entree or dinner
4. should not
5. same
6. before
7. should not
8. scrape
9. stacked

CHAPTER 31

ACTIVITY 31-2

NOTE: The answers below are suggested answers. Student's answers will vary according to their interpretation.

ACROSS CLUES

1. Allows guests to select food displayed at service counters and to assemble their selections on trays.
3. Features easy-to-prepare meals, short orders, pre-packed foods, and fountain items.
6. Meets the needs of costumers wanting modestly priced meals by providing counter, tray, or self-service.
7. May be divided into cafeteria, buffet, take-out service, and automated self-service.

DOWN CLUES

2. Uses vending machines to serve the food.
4. Allows customers to "take-out" food items or complete meals.
5. Offers food on a table or buffet either for self-service or to be served by an attendant.

ACTIVITY 31-3

1. C
2. B
3. A
4. B
5. A
6. B
7. A
8. C
9. C
10. B
11. C
12. B
13. B
14. A
15. B

ACTIVITY 31-4

1. a. Written on a blank pad
   b. Checked off on a prepared pad
   c. Entered on a computerized cash register
2. a. Pass written copy to kitchen
   b. Verbally send order to kitchen
   c. Put order in a computerized system while allows order to be seen in the kitchen.
3. a. Assemble order on trays
   b. Check order for accuracy
   c. Mark similar items for easy identification
   d. Use the American or plate service for serving food.
4. a. Meat may be carved or sliced as customers pass through serving line.
   b. Beverages, bread and butter, and desserts may be served at the table by attendant.
5. The following is a list of procedures which should appear in student's paragraphs:
   1) Greet customers as they approach.
   2) Ask which items they would like.
   3) Serve the food requested.
   4) Serve exact portions as directed.
   5) Know what plate or bowl size to use for each item.
   6) Place food within the rim of the plate.
   7) Place relishes which accompany the meat near the meat and away from potatoes to keep relishes and gravy from mixing.
   8) When serving salad, do not disturb the arrangement of salad bowl.
   9) Ask for all necessary information before serving food.
   10) Follow establishment's procedures when requested food item is temporarily unavailable.

ACTIVITY 31-5

Exercise A

1. meats
2. salads
3. garnishes
4. desserts
5. pie wedges
6. meat loaf
7. meat balls
8. cake and pie

Exercise B
making coffee, dispensing milk and soft drinks, preparing ice cream drinks, desserts, and making sandwiches

ACTIVITY 31-6

1. because customers can see everything behind the counter
2. should do: Use serving forks or tongs whenever possible.
   should not do: Do not touch food with bare hands.
3. becasue customers can see everything behind the counter and because counter workers handle more individual food items than most service personnel
4. answers may vary
5. answers may vary

ACTIVITY 31-7

1. T
2. T
3. F
4. F
5. F
6. F
7. T
8. F
9. T
10. F

CHAPTER 32

ACTIVITY 32-2

1. long before the date of the affair
2. a certain number of people; a certain date; selecting the menu; selecting the style of service
3. the number of expected guests; the type of function
4. banquet crew or two waitress or waiters on the night before
5. so that guests will not be crowded and may be served quickly and simultaneously
6. the type of function; the number of guests; type of service used; the amount of equipment and number of servers needed; the shape of the room; whether a head table is used and the number of guests seated there
7. enables guests at other tables to see people at the head table
8. large tablecloths are laid more easily by two persons; overlap ends of tablecloths if several tables have been put together; be sure center fold of each cloth is straight on the table

ACTIVITY 32-3

1. oval
2. quarter-round
3. oblong
4. curved
5. half-circle
6. round

ACTIVITY 32-4

1. B
2. A
3. A
4. B
5. B
6. A
7. B
8. B
9. A
10. A

A=30
B=25

ACTIVITY 32-5

1. O
2. X
3. X
4. O
5. O
6. X
7. O
8. X
9. X
10. O
11. O
12. X

ACTIVITY 32-6

in client's home, own kitchen, or in mobile facilites	special insulated containers	specially equipped vehicle	customer has choice of service
hotel/motel kitchen	Hot foods are covered, and cold foods are left uncovered; all are placed on a tray or cart.	taken to guest's room by a waiter or waitress on a tray or cart	cart or tray taken into room and covers removed
Trays of food are prepared on an assembly line, and food that needs to be prepared immediately before serving is prepared in the room.	Foods are placed on trays according to dietary needs and then checked by a food checker.	trays transported to portable carts which are delivered to designated floor	Trays are set up in patients' rooms so they may eat comforatbly.
in food preparation area	Beverages and food are placed on a tray.	by a carhop	on trays to customers in their cars
prepared in flight kitchen	stored in insulated containers until serving time	in refrigerators or warmers	by flight attendants to passengers' seats

ACTIVITY 32-7

1. cakes — by elaborately decorating them to add festivity to weddings anniversaries, birthdays, or receptions
2. coffee — put in a silver service and set up on a separate table for an elegant look at a special occasion
3. punch — served form silver, glass or plastic bowl with matching tray; fruit, greenery, flowers or ice ring can be added for special look
4. steaks — may be grilled in front of guests to whet their appetites
5. hors d'oeuvres — served as a main food at special parties and arranged on trays, plates, and other serving dishes
6. ice — delicate carvings which may be used as a centerpiece or container for food which must be kept cold
7. Japanese food — the entire meal may be prepared on a special table with customers seated around it
8. fruit desserts — may be flamed at the customer's table to give a spectacular effect

CHAPTER 33

ACTIVITY 33-2

1.
6.20 Sub Total
.37 Sales Tax
6.57 Check Total

2.
1.99 Sub Total
.12 Sales Tax
2.11 Check Total

3.
18.60 Sub Total
1.12 Sales Tax
19.72 Check Total

4.
5.02 Sub Total
.30 Sales Tax
5.32 Check Total

5.
10.05 Sub Total
.60 Sales Tax
10.65 Check Total

6.
21.78 Sub Total
1.31 Sales Tax
23.09 Check Total

7.
13.56 Sub Total
.81 Sales Tax
14.37 Check Total

8.
5.41 Sub Total
.32 Sales Tax
5.73 Check Total

9.
27.95 Sub Total
1.68 Sales Tax
29.63 Check Total

10.
9.15 Sub Total
.55 Sales Tax
9.70 Check Total

11.
20.17 Sub Total
1.21 Sales Tax
21.38 Check Total

12.
33.47 Sub Total
2.01 Sales Tax
35.48 Check Total

ACTIVITY 33-3

1.	Grilled cheese	4.50
	Milkshake	3.15
	Cola	1.30
	Sub Total	12.05
	Sales Tax	.72
	Total	12.77

2.	Vegetable	3.50
	Iced Tea	1.30
	Sub Total	28.65
	Sales Tax	1.72
	Total	30.37

ACTIVITY 33-4

1.	Sub Total	23.40
	Sales Tax	1.40
	Total	24.80

2.	Coffee	.90
	Sub Total	9.05
	Sales Tax	.54
	Total	9.59

3.	Sales Tax	1.25
	Total	22.05

4.	Sub Total	11.20
	Sales Tax	.67
	Total	11.87

5.	French Fries	1.90
	Cola	1.30
	Sub Total	9.30
	Sales Tax	.56
	Total	9.86

6.	Sales Tax	1.21
	Total	21.52

ACTIVITY 33-5

	Do	Don't
1.	X	
2.		X
3.		X
4.		X
5.	X	
6.	X	
7.		X
8.	X	
9.		X

ACTIVITY 33-6

1. The checks should be placed face down near the center of the table.
2. The check should have been presented face up on a check tray.
3. The check should be placed face down on the table to the right of the business woman who indicated that she would pay the check.

ACTIVITY 33-7

1.
   - Check that the credit card is signed by the cardholder.
   - Check credit card expiration date.
   - Search the "hot card" list or call to verify.
   - Place card in stamping machine with credit slip on top and slide bar over both to imprint the slip.
   - Complete credit slip by listing food items or meals, tax, and bar total on the slip according to employer's policy.
   - Total the amount.
   - Return the card, credit slip, and a pen to the customer for signature.
   - Compare customer's signature with the one on the credit card to be sure they are identical.
   - Return the customer's credit card, customer's copy of the credit slip, and offer the carbon paper.
   - Place the "original" of the credit slip in the cash drawer.

2. traveler's checks should be countersigned in the presence of the food service employee and presented with the required identification
3. to ensure the identification of the customer is the same as that printed on the check

ACTIVITY 33-8

1. 5 (.25, .10, .5, .1, .1)
2. 6 (.25, .25, .10, .1, .1, .1)
3. 3 (.25, .25, .25)
4. 7 (.25, .25, .25, .5, .1, .1, .1)
5. 7 (.25, .25, .25, .10, .5, .1, .1)
6. 2 (.10, .10)
7. 8 (.25, .25, .10, .5, .1, .1, .1, .1)

ACTIVITY 33-9

1. a. 1 quarter + 1 fifty-cent piece + one-dollar bills
   b. $1.25, $1.50, $2.00, $3.00, $4.00, and $5.00
2. a. 1 penny and 2 dimes
   b. $1.79, $1.80, $1.90, and $2.00
3. a. 1 penny + 2 dimes + 3 one-dollar bills + five -dollar
   b. $1.79, $1.80, $1.90, $2.00, $3.00, $4.00, $5.00 makes $10.00
4. a. 1 penny + 2 dimes + 3 one-dollar bills + 1 five-dollar bill + 1 ten dollar bill
   b. $1.79, $ 1.80, $1.90, $2.00, $3.00, $5.00, and $5.00 makes $10.00, and $10.00 makes $20.00

5. a. 1 nickel + 1 dime + 1 fifty-cent piece
   b. $2.35, $2.40, $2.50, and $3.00
6. a. 1 nickel + 1 dime + 1 fifty-cent piece + 1 quarter
   b. $2.35, $2.40, $2.50, $3.00, and $3.25
7. a. 1 dime + 1 nickel + 1 fifty-cent piece
   b. Since you gave me 3 pennies, I'll start from $5.10 and count to $6.00; $5.10, $5.20, $5.25, $5.50, and $6.00
8. a. 4 pennies + 1 nickel + 1 quarter + 3 one-dollar bills
   b. $6.66, $6.70, $6.75, $7.00, $8.00, $9.00, and $10.00
9. a. 1 fifty-cent piece
   b. Since you gave me $7.16 I'll subtract 16 cents and start counting from $6.50, $6.50, and $7.00

ACTIVITY 33-10

1. on the shelf of the cash register in full view of the customer
2. to make sure the correct amount is in the cash drawer
3. as change for customers
4. - determine cash in drawer
   - determine cash paid out
   - determine total cash sales
   - check that total on cash register tape is the same as the total cash from sales
   - sign cash register report
   - put all money and receipts in a moneybag and give it to the manager or supervisor according to the policies

ACTIVITY 33-11

Total Cash from Sales: $725.75
Cash Short: $5.00

ACTIVITY 33-12

1. $2.25
2. $2.63
3. $1.83
4. $4.89
5. $ .97
6. $3.85
7. $6.42
8. $4.74
9. $1.67
10. $2.80
11. $4.43
12. $6.98
13. $1.13
14. $2.96
15. $ .72
16. $3.48
17. $7.50
18. $3.15
19. $1.22
20. $4.80

ACTIVITY 33-13

1. F
2. F
3. F
4. F
5. T
6. F
7. T
8. T
9. T
10. F

CHAPTER 34

ACTIVITY 34-4

1. Policies
2. Organizational goals
3. Procedures
4. goals
5. policies and procedures
6. policies and procedures
7. planning
8. Employee

ACTIVITY 34-5

A. 3
B. 5
C. 2
D. 6
E. 1
F. 4

ACTIVITY 34-6

1. 1) Source: Local and state department of health; Information: Sanitary codes
   2) Source: Local, state, and federal departments; Information: Employment issues
   3) Source: State employment commissions; Information: Federal and state regulations; update on employment-related laws
2. 1) Enforce laws pertaining to food service sanitation.
   2) Schedule workshops regularly.
   3) Have clearly written policies and procedures available to employees.

ACTIVITY 34-7

1. G
2. D
3. B
4. I
5. E
6. F
7. C
8. A
9. H

CHAPTER 35

ACTIVITY 35-2

1. +
2. o
3. +
4. +
5. o
6. +

ACTIVITY 35-3

1. NUTRITIONAL NEEDS OF CUSTOMERS
2. NEEDS AND DESIRES OF CUSTOMERS
3. TYPE* OF FOOD OR MEAL SERVICE
4. LIMITATIONS OF EQUIPMENT

*The digits under this blank (E) should be 55 not 25.

ACTIVITY 35-4

1. LABOR COSTS — costs related to employee wages and benefits
2. OVERHEAD — cost of rent, utilities, equipment repair, and maintenance
3. FOOD COSTS — related to cost of food used in meal preparation; may be expanded to include cost of supplies, china, and other such items
4. FOOD SERVICE OPERATION — must be managed effectively and efficiently
5. ANTICIPATED PROFIT — amount of money the owner makes after all expenses are paid
6. TURNOVER — refers to number of customers served during the day
7. A LA CARTE — each menu item is listed and priced separately, allowing managers greater control over food costs
8. TABLE D'HOTE — complete meals being provided at one price

ACTIVITY 35-5

ACROSS	DOWN
1. preparation*	1. pinch
4. terminology	2. abbreviation
7. two	3. cluster
9. order	4. typed
11. numbered	5. ingredients
12. clips	6. updated
13. native	8. form
	10. weight

*should be preparation

CHAPTER 36

ACTIVITY 36-2

1. D
2. G
3. B
4. A
5. F
6. C
7. E

ACTIVITY 36-3

1. Keep the storeroom locked.
2. Safeguard the storeroom keys when not in use.
3. Do not permit unauthorized persons to enter stockroom.
4. Correctly complete requisition forms.
5. List items needed, including date, department area, and name and grade of item needed.
6. Have department head sign form before filling the order.
7. Keep end-of-the-month evaluation of inventory records to provide insight into the operation, provide information necessary for preparing orders and indicate how much money is tied up in food supplies.
8. Keep adequate supplies, but avoid stock piles of items which may reduce capital needed for some other use.

ACTIVITY 36-4

ACROSS

1. specification cards
4. credit terms
6. unit
8. purveyors
9. purchasing agent
10. unit price
11. steward

DOWN

1. special payments
2. dealers
3. receiving clerk
5. buyer
7. Total cost
9. P.O.

CHAPTER 37

ACTIVITY 37-2

1. High payroll; Lay off some employee, cut the amount paid to each worker.
2. Low income; Advertise more, feature low priced daily specials, raise prices, and make sure facility is clean and attractive.
3. High food and supply costs; Make smaller purchases, find less expensive suppliers, buy cheaper quality, practice portion control, reduce waste, and raise prices.

ACTIVITY 37-3

ACROSS

4. break even analysis
8. license
9. employee records

DOWN

1. profit loss statement
2. balance sheet
3. tax records
5. employee schedule
6. payroll records
7. time cards

ACTIVITY 37-4

Assets

Current Assets:		
Cash (in bank and on hand)	$2, 698	
Accounts receivable		
Food and Beverage Inventory	$2, 357	
Supplies	$650	
Total Current Assets		$5, 705
Fixed Assets:		
Vehicles	$4, 300	
Property Renovation	$750	
Stationary Kitchen Equipment	$7, 437	
Hand Kitchen Equipment	$2, 641	
Dining Room Furniture and Fixtures	$3, 489	
Tableware, Glassware, Flatware, Linens	$2, 178	
Total Fixed Assets		$20, 795
Total Assets (Current and Fixed)		$26, 500

Liabilities and Owner's Equity

Current Liabilities:		
Accounts Payable	$200	
Bank Notes Payable	$17, 000	
Total Current Liabilities		$17, 200
Total Owner's Equity		$9, 300
Total Liabilities and Owner's Equity		$26, 500

(Note: Total Liabilities and Owner's Equity should equal Total Assets.)

ACTIVITY 37-5

PROFIT AND LOSS STATEMENT

Total Sales		$916,800
Food cost		
Inventory at the beginning of the year	$103,200	
Food purchases during the year	$308,400	
Total	$411,600	
Less final inventory	$101,400	
Cost of food sold		$310,200
Gross profit		$606,600
Expenses		
Salaries	$194,400	
Other expenses	$ 39,792	
Total operating expenses		$234,192
Net profit		$371,408

ACTIVITY 37-6

1. - provides a tracking system for the patients and their individual dietary needs
   - analyzes food intake for specific nutrients
   - used for patient education in nutrition
2. - logging employee hours and benefits including preparing the payroll and writing checks
   - as a computerized cash register
3. - number of times a menu item is ordered each day
   - computation of each customer's bill
   - daily income
   - amount of sales tax collected

4. Regional business managers are able to compare each operation's business transactions within a matter of hours.
5. • payroll, accounts payable, purchasing, inventory, accounts receivable, order processing, and general ledger
6. • assisting in preparing menus
   • tracking how often certain food items have been served
   • storing several hundred recipes in various categories

ACTIVITY 37-7

(any ten of the following)

1. Clearly define the needs of the food service operation.
2. Project the future needs of the food service operation.
3. Prioritize the needs of the food service operation.
4. Specify how much money the food service operation can afford to spend on computer equipment and software.
5. Talk with other food service managers about the computers and the applications they have used or examined.
6. Keep a file of comments, reviews from computer magazines, reviews from industry journals, and your evaluations.
7. Talk with local computer dealers.
8. Contact hardware and software dealers directly, using computer magazines to locate addresses.
9. Evaluate the operator's manual, or documentation, to see how easy the software may be to use and it will meet the needs of the food service operation.
10. See the software demonstrated and use it before buying.
11. Check to see how much follow-up support is available for problems and questions after the purchase.

CHAPTER 38

ACTIVITY 38-2

Controlling employee absences
Discharging employees
Disciplining employees
Motivating employees
Delegating responsibilities
Organizing staff assignments
Communicating with employees
Enforcing rules

ACTIVITY 38-4

1. O
2. T
3. O
4. T
5. H
6. R
7. O
8. H
9. H
10. T
11. T
12. R
13. O
14. O
15. H
16. R
17. T
18. H
19. T
20. T
21. H
22. H
23. T
24. O
25. H
26. O
27. H

ACTIVITY 38-5

LABOR COST BUDGETS

Some budgets aid in scheduling by allotting a given amount of money for a given volume of sales. Budgets are based on past labor and sales figures.

IRREGULAR SCHEDULING

Starting times vary from one worker to another and from day to day. This type of scheduling is used to increase efficiency and avoid overworking or greatly inconveniencing any worker.

SPLIT SHIFT SCHEDULING

Workers not needed are released between meals. This type of scheduling is often used for servers.

USE OF STAFFING TABLES

These tables aid in scheduling workers by predicting the number of guests expected each day for each meal.

USE OF PART-TIME WORKERS

Part-time workers are often used to increase the staff during peal work loads. Additional personnel are often needed for large catered functions.

ACTIVITY 38-6

1.
    - peak production and service periods
    - hours operation
    - layout of the facility; production and service facilities
    - current labor costs of facility
    - needs of employees in terms of students schedules, vacation, and sick leave time
2. Firing — when an employee is permanently released from job duties because of a violation of rules, regulations, theft, or other such action

    Firing is a management decision.

    Layoffs — when due to economic conditions, employees are released from their job duties for specific or indefinite period of time

    Most often, layoffs occur when the business can no longer afford to keep the employee on the payroll but wants to retain the option of putting the employee back to work in the future.

    Layoffs are a management decision.

    Voluntary separation or quitting — when the employee decides he or she no longer wants to work for the company for whatever reason
3. to provide the employee the opportunity to share with the food service manager information concerning the job, work conditions, and any problems encountered by the employee.

    Exit interviews may reveal major flaws in management style or organization of the operation.

ACTIVITY 38-7

1 A	2 B	3 C	1 D	2 E
2 F	3 G	1 H	2 I	1 J
3 K	1 L	2 M	1 N	2 O
2 P	2 Q	1 R	3 S	1 T
1 U	1 V	2 W	2 X	3 Y

Total = 9

ACTIVITY 38-8

1. Production and quality controls serve as benchmarks or standards by which products are judged. If a product does not meet the standard, the food service manager may take steps to correct the problem.

2. When reproduction and quality controls are clearly defined they help employee actions and strengthen their sense of responsibility for maintaining the quality of food served.
3. A satisfied customer will convey their satisfaction to family and friends. "Word of mouth" advertising by pleased customers helps increase business and profits.
4. When customers know that they can get consistently good quality food, at reasonable prices, in portion sizes which are reflective of the restaurant and the prices charged, they will return often. This "costumer loyalty" helps a food service operation become financially successful.
5. Since labor, food, and production cost control are interrelated, a weak link in one control mechanism will affect other control systems. Information derived from one control system may be necessary for the effective operation of another control system. Therefore, it is important for each cost control system to be monitored separately.

CHAPTER 39

ACTIVITY 39-2

1. D
2. E
3. G
4. F
5. C
6. B
7. D
8. A
9. C
10. B
11. G
12. F
13. A
14. C
15. G
16. F
17. C
18. D
19. B
20. A
21. E
22. G
23. B
24. F
25. A
26. A
27. F
28. C
29. B
30. E

ACTIVITY 39-4

ACROSS

2. public relations
3. showmanship
4. clip ons
7. promotions
10. market study
11. credit cards

DOWN

1. food service personnel
2. product study
5. comment card
6. table tents
8. publicity
9. advertising

ACTIVITY 39-5

Advertising — is how the business lets customers know where the food service operation is and what it has to offer

Promotional programs — used periodically to attract customers; they are usually short-term incentives to encourage the purchase of a product.

Public relations — are the measures a business takes to win community respect.

ACTIVITY 39-6

1. • take time to read them and evaluate the comments
2. • the customers love the food and the prices but feel uncomfortable with the dirty surroundings
3. 1) it reflects the opinion of several customers
   2) it will improve the food service operation
4. • the manager
5. • handle the complaint as calmly and diplomatically as possible

Academic Integration Supplement to the Food Production, Management, and Services Curriculum Guide

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Guide to Use

This supplement is part of a series of materials published by the Home Economics Curriculum Center to facilitate integration of academic principles with home economics concepts. The supplement contains learning and evaluation experiences specifically designed to integrate mathematics, science, language arts, and social studies principles within the Food Production, Management, and Services course of study. The suggested experiences have been written to satisfy the essential elements of the course, so a teacher desiring to integrate academic principles while meeting a particular essential element can readily identify and incorporate an appropriate activity.

The academic integration supplements comprise the final component in the series of *Academic Integration* materials. Having access to the first two publications in the series—*Integration of Mathematics, Science, and Language Arts Principles in the Home Economics Curriculum* and *Integration of Social Studies Principles in the Home Economics Curriculum*—will greatly enhance effective use of the supplements.

Each of the publications are available from the Home Economics Curriculum Center, Texas Tech University, Box 41161, Lubbock, Texas 79409-1161.

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Compliance Statement

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Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a nonsegregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

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If there is a direct violation of the Modified Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 22375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMI-NATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except when age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

FOOD PRODUCTION, MANAGEMENT, AND SERVICES

(k1A) Demonstrate how to function effectively in routine operations.

Language Arts

Have students imagine they are employed in the food service industry. Have students write a position paper on the effectiveness of doing their jobs in a timely and cooperative manner. Ask for a few student volunteers to give a brief summary of their paper to the class. Lead a class discussion on the impact the lack of teamwork has on the successful completion of a task and how this affects the functioning of routine operations in the food service industry. KEY QUESTIONS: How would tardiness affect the functioning of routine operations? What effects could result if employees did not work together cooperatively? How would taking more time than was needed to complete a task affect routine operations?

Social Studies

Refer to the summary on sociology concepts on pages 87-90 of *Integration of Social Studies Principles in the Home Economics Curriculum*. Focus on the information on page 88 about status. After reviewing this information with students, divide the class into groups. Have each group investigate various job statuses or positions in the food service industry. Have each group develop an organizational chart of various positions, corporate structures, or career pathways in food service; note which are considered higher positions; and review what requirements are essential to mobility within the food service industry. Have the groups identify various barriers that might prevent one from moving from one strata to the next. Have the groups share their work with the class.

(k1B) Demonstrate interpersonal qualities which lead to job success in food service careers.

Language Arts

Lead students to brainstorm and list interpersonal qualities which lead to job success in food service careers. After these have been listed, lead a class discussion on why these qualities would be necessary. Distribute copies of Teaching Aid 1, Interpersonal Qualities for Job Success, to each student. Instruct students to list the eight qualities they feel are most needed in the food service industry and to evaluate their personal strengths and weaknesses in these areas. Then, have them formulate a personal improvement plan and track improvement through daily personal journal activities. Ask for student volunteers to share their personal improvement plans with the class.

Language Arts
Social Studies

Write the term *communication* vertically on the chalkboard or overhead projector. Have students identify a communication term or phrase related to food service careers for each letter in the word. Instruct students to write a paragraph about why communication skills are important in the food service industry. Ask volunteers to share their paragraphs with the class. Refer to the section Communication Skills in Chapter 27 of the Reference Book as a resource for this lesson. Lead a class discussion on the fact that the food service industry involves individuals from many different cultures and how this might produce some communication barriers. KEY QUESTIONS: How can communication barriers be overcome? How might communication vary between different cultures? Why is communication such an important skill in the food service industry? As a resource refer to page 87 in *Integration of Social Studies Principles in the Home Economics Curriculum*.

(k1C) Demonstrate techniques for maintaining good client relationships.

Language Arts

On the chalkboard or overhead projector display the statement, "The customer is always right." Divide the class into small groups, and have each group discuss this statement. Instruct each group to compose and present a skit illustrating an unsatisfied customer in a food service establishment and how the personnel of the establishment should handle the situation. Lead a class discussion on the importance of pleasing and satisfying customers. KEY QUESTIONS: Do you think food service personnel should have a "customer is always right" attitude? What are the advantages of personnel having this attitude? Why is it important for a food service establishment to promptly acknowledge a mistake or problem? If a mistake or problem has occurred, what can be done to make up for or correct the incident? What is likely to happen if a customer leaves unsatisfied?

Social Studies

Lead students to brainstorm and list reasons why people eat out, such as entertainment, enjoyment, special occasions, or necessity to meet their basic need for food. Lead a class discussion on how food service employees affect customers' dining experiences. Examples could include the following: a family comes into a restaurant to celebrate a birthday and the waiter is rude and very uncooperative, or a food service employee who delivers hospital trays to patients has a negative attitude. KEY QUESTIONS: How can a food service worker affect a person psychologically? Why should a food service employee strive to demonstrate quality service to customers? What barriers might prevent one from demonstrating quality service to customers? What should one do to overcome these barriers? If a food service employee is not demonstrating quality service, how might this trigger the domino effect? Lead students to discuss all the people or things affected by a nonservice attitude.

(k1D) Apply organizational goals, policies, and procedures.

Language Arts
Mathematics

As a class review the section Establishing Policies and Procedures in Chapter 34 of the Reference Book. Divide the class into groups and have each group develop a benefits policy for one of the following types of food service establishments:

- fast-food restaurant
- seated quick-service restaurant
- seated service restaurant

- institutional food service (for example, schools, hospitals, or prisons)

Allow students to research several benefit policies from various food service establishments of their group's assigned type. Have groups present their food service's benefit policy to the class. Each presentation should describe the complete benefit policy for each employee level from dishwasher to manager. A benefit policy would include items such as vacation time, sick leave time, funeral leave, retirement fund, and health insurance. Also, have students calculate figures for a whole year (for example, 7 hours of vacation per month = 10.5 vacation days per year). Lead students to discuss the presentations. KEY QUESTIONS: Why might someone at a higher job status receive more benefits than someone at a lower job status? Why are benefits important to consider when seeking a job?

Language Arts

As a class review the section Organizational Goals in Chapter 34 of the Reference Book. Review with the students the summarized information on the perception of cause and effect relationships on page 91 of *Integration of Mathematics, Science, and Language Arts Principles in the Home Economics Curriculum.* Divide the class into groups and assign each group one of the following organizational goals:

- financial stability and success
- compliance with local, state, and federal regulations
- good employee relations
- high levels of food quality and sanitation
- plans for the future of the business
- customer goodwill and good customer relations

Have each group predict the cause and effect relationship if the assigned organizational goal was not met or if the food service establishment did not set the goal. Have each group present the work to the class. After each group has presented, have the class add any cause and effect relationships that might have been overlooked.

(k2A)Classify nutrients according to their sources and functions.

Language Arts
Science

Give each student a puzzle piece from Teaching Aids 2a and 2b, Nutrient Puzzle Pieces. Instruct students to find the person who has the puzzle piece that fits theirs. The puzzle pieces include the following nutrients:

- protein
- vitamin A
- vitamin D
- vitamin E
- vitamin K
- vitamin C
- B vitamins - thiamine, riboflavin, and niacin
- calcium
- phosphorus

- iron

Have each pair prepare a report to be presented to the class, including sources of the nutrient, the nutrient's function in the body, diseases that result from excess or lack of the nutrient, and foods containing the nutrient. Encourage students to use visual aids, such as transparencies and posters, to enhance their reports. Provide books such as science and nutrition books for students to use as resources.

Science

Remind students that eating a wide variety of foods every day is important to ensure that the body gets all of the nutrients it needs to function efficiently. Have students keep a three-day food log of everything they eat. At the end of the three days, have students evaluate their food logs and determine if changes need to be made in their diets to ensure the proper intake of nutrients. Have students use a nutrient chart to find which nutrients are contained in the food on their log. Through questioning, lead the class to explore science principles related to nutrition. KEY QUESTIONS: What did you learn from this activity? Does your diet include a wide variety of proper foods? What changes need to be made in your diet? What are the effects of an improper diet?

(v2B) Determine food choices to meet special dietary needs.

Divide the class into groups. Assign each group one of the following therapeutic diets:

- bland
- calorie-controlled
- calorie-restricted
- fat-restricted
- clear liquid
- liquid
- soft
- diabetic
- sodium-restricted

Language Arts
Science

Instruct the groups to investigate the therapeutic diet they were assigned. Each group should prepare a class presentation providing a description of the diet, how the diet can meet nutritional requirements through certain foods or supplements, and a complete one-day menu for that type of diet. For references, have students refer to Chapter 8 in the Reference Book as well as other related materials. Remind students that knowing how and where to locate information when it is needed is a powerful decision-making tool, which is a language arts concept. After the presentations, lead a class discussion on the need for these types of diets. KEY QUESTION: How do these diets help basic body systems? For summarized information on basic body systems refer to page 44 in *Integration of Mathematics, Science, and Language Arts Principles in the Home Economics Curriculum.*

Mathematics
Science

Ask students to define the terms *nutrient dense* (refers to foods that are excellent sources of essential nutrients with few, if any, empty calories) and *empty calorie* (refers to foods that provide calories or energy but little or no nutritive value). Lead a class discussion about the importance of nutrient-dense foods in the diet. KEY QUESTION: Why might an individual need a nutrient-dense diet? For example, due to the senses of taste and smell becoming less strong in elderly individuals, food may lose its appeal to some extent. If older adults do not have the appetite to eat as much food, it is important that foods eaten are nutrient dense. To determine the nutrient density of a food, compare the vitamin or mineral content of the food with the number of kcalories it provides. The higher the nutrient density in the food the more nutrient there is per kcalorie. Divide the class into groups, and have each group plan an appropriate nutrient-dense menu for one day for the following:

- preschool child
- elderly adult
- pregnant woman
- burn victim
- person who has recently had surgery

Have the groups place their final menu on a posterboard to be presented to the class then displayed in the classroom. Lead students to discuss the menus. KEY QUESTIONS: How could a nutrient-dense diet be harmful to some individuals? Why should people in the food service industry be concerned with nutrient-dense foods?

(k2C) Relate food preparation and service techniques to retention of nutrients.

Science

Point out to students that food preparation techniques affect the retention of nutrients. Refer to page 54 of *Integration of Mathematics, Science, and Language Arts Principles* to discuss physical changes in matter. Explain that although physical changes do not result in the formation of new substances, in foods, the nutritive value can be affected by physical changes. Inform students that the nutrient with which they will experiment is vitamin C, which is a water-soluble vitamin. The food with which they will experiment is green bell peppers, which are a nutrient-dense source of vitamin C. Divide the class into lab groups and give each student a copy of Teaching Aid 3, Vitamin C Retention Experiment. Instruct students to follow the directions on the Teaching Aid. (The school's science department should have the indophenol solution needed for this experiment.) After the groups have completed their experiments, lead a class discussion on the groups observations and conclusions. Point out to students the three main things that cause nutrient loss are (1) nutrients lost in cooking water that is not consumed, (2) heat, and (3) oxidation. Display a transparency of or distribute a copy of Teaching Aid 4, Preserving Nutrients, and review with the class ways to preserve nutrients.

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
Language Arts *Social Studies*	Divide the class into groups, and have each group consult references and interview individuals to discover techniques for preserving nutrients during preparation and service of ethnic foods. Groups could have a representative contact a local ethnic restaurant, such as Middle Eastern, Italian, French, Asian, Mexican, African American, or other ethnic cuisine, to ask about hints for preserving nutrients as food is prepared and served. For example, many Chinese and Japanese dishes use the method of stir-frying which improves nutrient retention through fast cooking and as an added benefit uses very little fat. Have groups present their findings to the class. Lead a short discussion after each presentation. KEY QUESTIONS: What techniques were similar in preparing and serving various ethnic foods? What techniques were different? Why should every food service establishment be concerned with nutrient retention?
(k3A) Apply federal, state, and local sanitation codes for food service establishments. *Language Arts*	Instruct each student to select a federal, state, or local sanitation code for food service establishments. For example, some cities feel that it is more sanitary to work with properly washed bare hands than to wear plastic gloves when handling food directly. Allow students to use library resources, interview a food service manager, or contact the local health department or an OSHA representative. After students have selected their code, they should gather information on the history of when and why the code was enacted and the stipulations that must be followed under the code. Have students report their information by writing an informative article suitable for publishing in a newspaper. Compile the articles and display them on a bulletin board with a news theme. Allow students to share their findings with the class.
Language Arts *Science*	Divide the class into groups. Arrange for the students to go to the library to look through newspapers and magazines to find an article about a food-borne illness outbreak in a restaurant. From this article, instruct students to identify the type of food-borne illness, the effects of the food-borne illness, the sanitation codes that were violated or that need to be updated, and how this outbreak could have been prevented. After groups have completed their research, have them present their work to the class.
(k3B) Apply safety and sanitation techniques in food handling, preparation, service, storage, and cleanup. *Language Arts* *Science*	Divide the class into groups to research proper food storage techniques. Assign one group to study dry (shelf) storage, one group to study refrigerator storage, and one group to study freezer storage. Provide students with home economics textbooks to use, or if necessary, the opportunity to go to the library for resources. Each group should locate detailed food storage information, including the following: • proper storage temperatures • methods of rotation for food items

- maximum length of storage time for different food items
- methods for keeping track of the inventory

Each group will report the findings to the class. As the groups report their findings, lead the class to explore science principles related to food storage. Encourage students to use visual aids in presenting their reports. Remind students that knowing how and where to locate needed information as well as presentation skills are strong language arts components.

Mathematics

Demonstrate to the class how to use various kitchen thermometers. In addition to providing the actual thermometer, provide students with a copy of Teaching Aid 38, Types of Thermometers, from the Curriculum Guide. Using the thermometers, allow students to record temperatures from various items such as cooked foods, cold storage, ovens, warmers, and food items on the serving line. Lead a class discussion about the use of thermometers in food preparation. KEY QUESTION: Why is knowing how to properly use various kitchen thermometers important in relation to safety and sanitation of foods?

(k3C) Inventory food supplies, utensils, and equipment.

Mathematics

As a class, review the section Inventorying in Chapter 12 of the Reference Book. Divide the class into groups and have each group develop a system for inventorying one of the following:

- food supplies
- large equipment
- small equipment
- large utensils
- small utensils

The system should be efficient and in a format that can be easily used and read. After groups have developed a system for the assigned items, have them use the system to actually inventory that part of the food production lab. As the groups inventory, instruct them to evaluate the system they developed. After students finish inventorying their items, have the groups discuss how the system they developed worked and how the system could be revised to correct difficulties or shortcomings in easily and accurately taking inventory. Ask groups to explain their method of inventory to the class and to turn in an inventory sheet(s) for the assigned items. Combine each group's completed inventory to produce a comprehensive inventory of the lab. Lead a class discussion about inventorying. KEY QUESTIONS: Did you revise your system of inventorying? Why? Why is it important for a food service establishment to have an effective method of inventorying? Why is it necessary to do inventory?

Mathematics

Have students review the section Receiving Records and Forms in Chapter 12 of the Reference Book, and lead a class discussion about the importance of record keeping. KEY QUESTION: Why would a food service establishment need to keep daily records of what was received? Distribute a copy of Teaching Aid 5, Receiving Sheet, to each student. Instruct students to calculate the missing amounts and fill in the blanks. After students have completed the sheet display a transparency of Teaching Aid 5—Answer Key. Review the answers as a class.

(k3D) Use large and small food service equipment as appropriate for prescribed task.

Language Arts

Lead students to brainstorm and list large and small food service equipment. Ask one student to record the list on the chalkboard or overhead projector. Divide the class into groups of two. Assign pairs a large or small piece of food service equipment, and instruct them to develop a card on the piece of equipment that includes the following:

- what the piece of equipment is used for
- how to properly and safely operate the piece of equipment
- how to properly clean the piece of equipment
- what routine maintenance needs to be performed on the piece of equipment

Remind students that the information cards need to be thorough and concise. Have each pair present the information card to the class. After each presentation, lead a class discussion on the group's card. KEY QUESTIONS: Was the information easy to understand? Was the information worded in a short and simple format? Is there anything else that needs to be added? Why is it good to have information cards on pieces of equipment?

Science

Conduct a class experiment/demonstration to compare using three different kitchen utensils to perform the same task. Recruit six students to help with the experiment. The rest of the class will be the viewing audience. Have the six recruits form three pairs: Pair A, Pair B, and Pair C. Have each pair demonstrate preparing whipped cream with various pieces of food service equipment. Have Pair A use a hand mixer, Pair B use a wire whip, and Pair C use a commercial mixer. After each pair has prepared the whipped cream, have the class compare the time and energy used in making the whipped cream using the three different methods. KEY QUESTIONS: Which method took the least amount of time? the most amount of time? Which method took the most effort and energy? the least effort and energy? Through questioning, lead the class to explore science principles related to time and energy.

(k3E) Demonstrate appropriate maintenance of food service equipment and tools.

Science
Social Studies

Lead a class discussion on the history of cold storage equipment, such as refrigerators and freezers, or have students research historical information on refrigerators and freezers. An encyclopedia would be a good resource for information. Have students imagine challenges a food service establishment would face without the cold storage equipment of today. Ask students if they have heard their grandparents or great-grandparents talk about iceboxes. Explain that during the time when ice boxes were used large blocks of ice were delivered to homes several times a week and placed in a small compartment over a large "box." This was their means of what we refer to as a refrigerator today. Have students identify science concepts which are applied in cold storage. KEY QUESTIONS: Why is cold storage equipment essential in food service? Why is it important to maintain and clean cold storage equipment regularly? What is involved in the maintenance of cold storage equipment?

Language Arts

Retrieve all the user's manuals for the equipment in the food service lab. Divide the class into groups, and distribute a manual to each group. Have groups develop a maintenance sheet for the piece of equipment they were assigned, including a full maintenance of the piece of equipment as well as a routine maintenance schedule. Instruct each group to present the information sheet to the class and if possible, demonstrate the maintenance. KEY QUESTIONS: Why is it important to perform routine maintenance on equipment? How does this improve safety in operating the equipment? Does maintenance on equipment save money? Why?

(k4) Demonstrate procedures for preparing beverages, appetizers and garnishes, salads, main entrees, fruit and vegetable dishes, desserts, and breads.

Science

Lead a class discussion on the functions of acids and bases in baked goods, such as cakes, muffins, and brownies. As resources refer to Chapter 25 in the Reference Book and the summarized information on acids and bases on page 56 of *Integration of Mathematics, Science, and Language Arts Principles in the Home Economics Curriculum*. Divide the class into groups, and have them use cookbooks and other resources to locate brownie, muffin, pound cake, or cake recipes and identify the source of acid and/or base in each. Have each group share five examples with the class, and lead students to discuss the different examples. KEY QUESTIONS: What is the purpose of acids and bases in a recipe? What would result if an acid or base was omitted from a recipe?

Science
Social Studies

Lead a class discussion on the various types of climates in the United States. For summarized information on climates refer to pages 79-83 of *Integration of Social Studies Principles in the Home Economics Curriculum*. Have students investigate how preparation techniques are affected in items such as cakes or breads. Have students read the information on the back of a product, such as a cake or muffin mix, for instructions for preparing the item at a higher altitude. Also, have students investigate the influence of heat and humidity in various climates on food storing and spoilage. For example, bread would mold more quickly in Florida during the summer than in Colorado during the winter. Lead a class discussion regarding altitude and climate in food preparation and preservation. KEY QUESTIONS: What could happen if higher altitude baking techniques were not followed? What precautions for food spoilage of bread products would need to be followed in a hot and humid climate? dry and cool climate?

Mathematics

Explain to students that frequently in food service establishments ingredients for recipes are measured in pounds, ounces, or grams instead of cups, teaspoons, and tablespoons. Point out to students that grams are most commonly used in European restaurants. Lead a class discussion on the methods of measuring used in different countries. Demonstrate how to measure grams using a portion scale. Divide the class into groups for a foods laboratory. Distribute copies of Teaching Aid 6, Single Layer Chocolate Cake. It is suggested that this be a two day lab. On the first day, students should measure all the ingredients possible and get everything ready to prepare the recipe. On the second day, each group should prepare a cake. Follow up by leading the students to discuss the experience. KEY QUESTIONS: What difficulties did you encounter measuring with a portion scale? Were any of the measurements inaccurate, affecting the outcome of the cake?

Science

Have students refer to Chapter 19 in the Reference Book and identify less tender cuts of meat. Have a class recorder list these cuts on the chalkboard or overhead projector. Have students hypothesize cooking methods for tenderizing these cuts of meat. Refer students to the section Tenderizing in Chapter 19 of the Reference Book. Review with the students the summarized information on physical and chemical changes on page 54 of *Integration of Mathematics, Science, and Language Arts Principles in the Home Economics Curriculum*. Divide the class into groups of two and assign each group a less tender cut of meat. Instruct the groups to find a recipe that would tenderize their cut of meat and identify the tenderizing method as physical or chemical. Have students share their experience with the class.

(k5A) Point out how various food combinations are aesthetically pleasing.

Social Studies

Prepare various foods using food coloring to make the food odd colors (for example, green eggs and ham). Place the food where the students cannot see it. Tell the students you have prepared a snack for them. As students react to the odd colors of the food begin questioning them to explore social studies principles. KEY QUESTIONS: What is wrong with the food? Does it taste the same? What difference does the color of the food make? Does the color bother you because society's norms dictate a different color for this particular food? Lead a class discussion on how psychological beliefs and society's norms affect how we feel about food. Lead students to discuss how foods may appear different in various cultures such as blue and red corn tortilla chips.

Social Studies

Provide sources such as gourmet cookbooks or a book about Japanese cooking to discover how this culture strives to make food aesthetically pleasing. If possible, invite a Japanese cook to speak to the class about the culture's desire to display the beauty of food. After students have received this knowledge, display the Japanese statement, "Food should feast the eye as well as the stomach." Instruct students to individually compose a one-page position paper on the statement. Ask for volunteers to share their papers with the class. Lead students to discuss the importance of eye appeal in food preparation. KEY QUESTIONS: Do you like food to appear attractive as well as taste good? Why? Why do you think aesthetically pleasing food is important in the food service industry? What can enhance various foods in being aesthetically pleasing?

(k5B) Demonstrate ways to assist other employees during emergencies or rush periods.

Language Arts
Social Studies

Share with students the definition of *socialization* on page 87 of *Integration of Social Studies Principles in the Home Economics Curriculum*. Lead a class discussion on teamwork in the workplace. KEY QUESTIONS: Why might it be hard for someone to become a part of a team? How does socialization affect teamwork? What problems occur when there is a lack of teamwork? How does a person's personality affect teamwork? Divide the class into groups. Have each group compose a skit for a sitcom demonstrating teamwork or the lack of teamwork in one of the following situations:

- rush period
- under planning for a crowd
- over planning for a crowd
- employee absentee
- setting up before rush period

After each skit presentation, lead a short class discussion. KEY QUESTIONS: Was there teamwork or a lack of teamwork? Why? How did or would teamwork help this particular situation? Point out to students that language arts competence includes sharing oral products in a variety of ways.

Social Studies

Lead a class discussion on the Industrial Revolution and assembly lines. Refer to the summarized information on industrialization on page 43 of *Integration of Social Studies Principles in the Home Economics Curriculum*. Another reference is an encyclopedia. Have students read the section Trayline Service in Chapter 29 of the Reference Book. Lead a class discussion on the similarities of an assembly line and trayline service, with the main similarity being that one worker is usually responsible for each major work area. Include in the discussion advantages and disadvantages of trayline service. KEY QUESTIONS: In this type of service, what problems might occur in emergencies or when someone is absent? What are the advantages of knowing another person's job? How could doing one specific job everyday affect a person's moral?

CONCEPTS

(k5C) Utilize work schedule so tasks are completed at prescribed times.

LEARNING AND EVALUATION EXPERIENCES

Mathematics

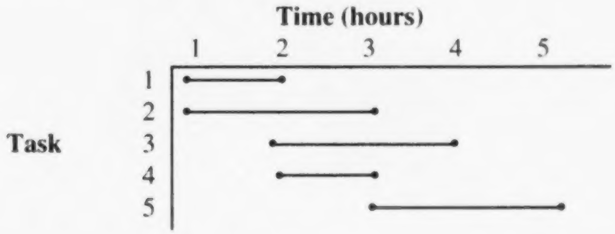
Divide the class into small groups. Provide each group with one of the following tasks:

- preparing two ham and cheese sandwiches with lettuce and tomatoes
- preparing four glasses of iced tea
- preparing three grilled cheese sandwiches
- preparing two cheeseburgers with the works
- preparing three hot fudge sundaes

Instruct each group to formulate a work plan for the assigned task that identifies any dovetailing techniques, assigns individuals specific duties, and makes adjustments for unforeseen problems. Have the groups list the whole process step by step, indicating an approximate time for each task. Then ask students to calculate a total time for the task to be completed with everything going as planned and everything going wrong. Give groups a transparency to use to present their process to the class, including time estimates. Encourage students to use charts, graphs, or flow charts in their presentation. Have the class evaluate each group's plan. KEY QUESTIONS: What could be done different? Is there more dovetailing that could be done? If so, what? Is this a time and energy efficient plan? Why? How does proper planning save time?

Language Arts

Point out to students that part of being a manager of a food service establishment is being able to organize a work schedule so tasks are completed at prescribed times. Divide the class into groups. Locate and show students an example of a Gantt chart. A *Gantt chart* lists everything to be done in chronological order. A time frame is attached to each task showing when the task should be started, how long it will take, and when it should be finished. The diagram below provides a skeleton for a Gantt chart.



Assign each group to develop a flow chart or a Gantt chart that includes every task to be completed in the foods lab for one week. Include things such as cake orders, cookie orders, meal labs, pre-preparation, and market orders. Lead students to discuss how planning schedules relates to efficiency. KEY QUESTION: How does planning work schedules contribute to time management and efficiency?

CONCEPTS | **LEARNING AND EVALUATION EXPERIENCES**

(k5D) Demonstrate portion control and food/beverage service techniques.

Mathematics

Have students read the section Food Portioning in Chapter 13 of the Reference Book. KEY QUESTIONS: Why is food portioning important? If customers order the same menu item and one receives a larger portion, what problems might this cause? Does portioning have an effect on budgeting and profit? How? Distribute a copy of Teaching Aid 7, Food Portioning, and have students independently complete the problem, rounding the answers to the nearest whole number. After each student has completed this task, lead students to discuss their findings. The answers are as follows:

1. 91 servings from a #10 scoop
2. $0.13 per serving using a #10 scoop
3. 64 servings from a #6 scoop
4. $0.18 per serving using a #6 scoop
5. difference of 27 servings
6. $0.05 price difference per serving
7. $1.35 cost to the restaurant
8. $9.45 cost to the restaurant for one week
   $37.80 cost to the restaurant for one month

KEY QUESTIONS: Do you think portion control has an effect on budgeting and profit? Why?

Social Studies

Arrange for students to visit the school cafeteria. Ask the director of the cafeteria to speak to the class about portion sizes: how the portion sizes are regulated, how this affects the ordering of food, what laws mandate portion sizes, and who checks to see that these laws are being followed. Allow students to ask any questions they might have. After hearing the speaker, instruct students to write a one-page summary on the role government plays in the school cafeteria. After students have completed their summaries, lead a class discussion on the role of government in the school cafeteria allowing students to share portions of their papers.

(k5E) Demonstrate holding and storing techniques for prepared food.

Science

Review with the students the summarized information on light and its properties on page 61 in *Integration of Mathematics, Science, and Language Arts Principles in the Home Economics Curriculum*. After reviewing this information, have students read the section Infrared Lamps in Chapter 11 of the Reference Book. If possible, invite a science teacher to speak to the class on the science principles of using lighting to keep food warm. Through questioning, lead the class to explore science principles related to the use of lighting when holding food to keep it warm before serving. KEY QUESTIONS: For holding food, why should an infrared light be used instead of a regular light bulb? How does light keep food warm? How long can food be left under an infrared light before it reaches the danger zone for harmful bacteria growth?

Lead a class discussion on how technology has affected the holding and storing of foods. Based on the section Science and Technology

CONCEPTS	LEARNING AND EVALUATION EXPERIENCES
Science *Social Studies*	on page 37 in *Integration of Mathematics, Science, and Language Arts Principles in the Home Economics Curriculum*, remind students that technology is related to science. If possible, interview someone who was involved in food service in the past before much of the common food storage equipment existed. If an interview is not possible, have students go to the library and conduct research on the early methods of holding and storing foods. Lead a discussion about the students' findings. KEY QUESTIONS: How would the early methods have affected the choice of what was going to be prepared? What were food choices based upon? What might have happened to leftover food?
(k5F) Apply techniques for welcoming guests and overseeing customer satisfaction. *Language Arts*	As a class, review the section Welcoming and Seating Customers in Chapter 30 of the Reference Book. On the chalkboard or overhead projector display the phrase, "The host or hostess of a food service establishment should sincerely welcome guests because . . ." Instruct students to begin with this phrase and to write a persuasive paragraph explaining why guests should be welcomed. Have a few students share their paragraphs with the class. Lead a class discussion on the importance of guests feeling welcomed and overall satisfaction with the restaurant. KEY QUESTIONS: What is likely to happen if a guest has a bad experience with the restaurant? How can this affect the restaurant?
Social Studies	Lead a class discussion on communication in prehistoric times. It is theorized that early people probably communicated with one another by sounds and gestures long before actual words were developed. Lead the students to discuss the fact that although we use verbal language, body language is still very useful in our society, especially in the food service industry. KEY QUESTIONS: How can noticing the body language of a customer aid in overseeing customer satisfaction? What things can be noticed from body language? How does the body language of a food service employee affect a customer? Have students cite examples or demonstrate different types of body language that might be seen in a food service establishment.
(k5G) Demonstrate techniques for serving customers. *Language Arts*	Divide the class into groups of three. Have each group refer to the section Serving Food and Beverages in Chapter 30 of the Reference Book. Instruct students to develop a checklist of serving techniques that should be used when serving either breakfast, lunch, or dinner. After the checklist has been completed, have the groups take turns pretending to serve a meal. The two being served should carefully observe the server, and when the person has completed the service, the observers should put a check by each item that was properly completed. Point out to students that this activity strongly reinforces the language arts components of listening, observation, and evaluating the information received. KEY QUESTIONS: Why are

these service techniques important? What kind of service do you think you would receive without these service techniques?

Social Studies

Divide the class into six groups and assign each group one of the following:

- American service
- French service
- Russian service
- English service
- buffet service
- banquet service

Have each group research the assigned type of service and prepare a class presentation. The presentation should include a description of the style, a history of the style, and social aspects of the style. Have students refer to Chapter 29 for a beginning reference. After each presentation, have students think of particular food service establishments in their area that provide that type of service.

(k6A)Outline procedures to follow in packing catering utensils and equipment for transport.

Mathematics

Lead a class discussion on packing catering utensils and equipment and how the weight of the boxes and body mechanics are included in this process. Have a box and catering utensils and equipment out on the counter. As a class, discuss which items could be packed into the box to accommodate for a safe-lifting weight and efficiency in space. Have each student estimate how much each item weighs and if possible, weigh each item. Determine how much the packed box weighs. Lead a class discussion on the safest way to lift this box from the floor. KEY QUESTIONS: Why is it important to proportion weight when packing boxes for catering? Why does one need to be concerned with body mechanics? Display or distribute a copy of Teaching Aid 8, Basic Body Mechanics Terms, and go over each term. Then display or distribute a copy of Teaching Aid 9, The Lifting Process. Following these guidelines, have a student volunteer lift the box as the class identifies the proper steps.

Language Arts
Mathematics

Distribute a copy of Teaching Aid 10, Catering Guidelines, to each student. Instruct the students to interview caterers and research in the library for sources on catering to fill in guidelines in the correct boxes. Take note of the guidelines that are repeated through interviews and resources. After all the data has been collected by individual students, divide the class into groups. Have each group analyze all the data in Part A and create ten guidelines for packing catering utensils and equipment for transport. These guidelines should be in an easy-to-follow format that a caterer could give to a new employee for direction. Distribute a clear transparency sheet to the groups, and have them record their ideas on the transparency and share their guidelines with the class. Students need to keep their data sheets for the next teaching strategy. Remind students that collecting, organizing, and interpreting data utilizes mathematics skills.

(k6B) Describe techniques for transporting food to maintain quality.

Language Arts
Mathematics

Building upon the work that was done in the previous teaching strategy, have students regroup. Have each group analyze all the data in Part B of Teaching Aid 10, Catering Guidelines, and create ten guidelines for transporting food to maintain quality. These guidelines should be in an easy-to-follow format that a caterer could give to a new employee for direction. Have the groups transfer their guidelines to a transparency sheet to present to the other members of the class.

Social Studies

Lead students to brainstorm various types of foods they have had at weddings, which is one of the major events for which a caterer is needed. Lead a class discussion on how these food choices might have been influenced by the time of year, the location of the wedding, and the culture of the families. Divide the class into groups. Have each group select a culture, such as German, American, Spanish, Italian, or Chinese, and research wedding feasts of this particular culture. Make sure that no two groups are researching the same culture. After groups have completed their research, have them pretend they are a caterer and plan the food for a wedding reception in the culture they researched. Ask groups to designate the date of the wedding they are catering. Remind the groups to think about the time of year and the location when planning the food. Instruct the groups to consider how the food will be transported and monitored throughout the reception to maintain quality. Have each group present the work to the class.

(k6C) Describe the relationship between catering and in-house food preparation.

Social Studies

Lead a class discussion on the basic purpose of government in our society and how government affects the food service industry. For summarized information on the basic purpose of government refer to page 63 in *Integration of Social Studies Principles in the Home Economics Curriculum*. Invite a representative from the Department of Health to speak to the class on laws and guidelines for caterers to follow. If this is not possible, obtain a copy of the guidelines from the Department of Health, and have students read the information. Lead students to discuss what they learned. KEY QUESTIONS: What is the advantage of the government mandating catering guidelines? Is it possible for all who cater out of their home to be under government mandate? Why? Does your town or city have a city ordinance on running a business out of the home? If so, what is the ordinance?

Language Arts
Mathematics

Divide the class into groups of two or three. Instruct each group to design a catering business. The catering business can be an accommodated service, on-premises catering, off-premises catering, or mobile unit catering. Refer to Chapter 32 in the Reference Book for a brief description of the types of catering. Have groups present their business to the class. The presentations should include details about the business, such as a business description; funding; budget; supplies and equipment; advertising; and laws, regulations, and codes to be followed. Refer to the section Entrepreneurship in the *STAR Event Guidebook* as a resource for students. Be sure students recognize the application of language arts skills in the presentation and mathematics skills in budgeting and calculating funding for the business.

INTERPERSONAL Qualities for Job Success

Quality	Do I have this quality?	How can I get this quality?	Who do I know that has this quality?
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

TA 2a

Nutrient Puzzle Pieces

Protein

Vitamin E

Vitamin K

Vitamin A

Vitamin D

TA 2b

Nutrient Puzzle Pieces

Vitamin C

Calcium

B Vitamins

Niacin

Thiamin

Riboflavin

Phosphorus

Iron

Vitamin C Retention Experiment

Equipment and Supplies:

1 green bell pepper
indophenol solution
eye dropper
4 test tubes
test tube rack

Instructions:

1. Chop the green pepper into small chunks.

2. Divide the pepper into three equal portions.

3. Prepare the pepper portions as follows:
   - Leave one portion raw.
   - Boil one portion, draining the pepper after it has cooked and blotting dry with a paper towel. Save the water in which the pepper was cooked.
   - Stir-fry one portion of the pepper until crisp and tender.

4. Place 2 tablespoons of the following in separate test tubes:
   - raw green pepper
   - stir-fried green pepper
   - boiled green pepper
   - water in which green pepper was boiled

5. Place one drop of indophenol solution into each test tube. A color from blue to colorless indicates a positive test for vitamin C.

Data/Observations: Record what happened when the indophenol solution was placed in the test tubes.

Conclusions: What conclusions can be made from the observations?

TA 4

Preserving Nutrients

- Avoid overcooking. Prolonged exposure to heat causes loss of some vitamins.
- Cover refrigerated foods with tight-fitting lids, foil, or plastic wrap.
- Cut fruits and vegetables in large pieces. Chop immediately before use to avoid unnecessary exposure to oxygen.
- Freeze or refrigerate leftovers immediately after use. Leaving foods exposed to room temperature increases nutrient loss, promotes an environment for bacteria to grow, and increases rate of spoilage.
- Include raw fruits and vegetables in menu planning and food preparation.
- Refrigerate most products to reduce nutrient loss.
- Rinse foods in cold water. Do not soak. This causes loss of valuable water-soluble nutrients.
- Thaw frozen foods in the refrigerator. More nutrients are retained at cooler temperatures, and this also inhibits the growth of organisms that can cause food-borne illness.

Receiving Sheet

RECEIVING CLERK'S DAILY REPORT
VENDOR:

No. ______________________
Date ______________________

Quan.	Unit	Description	Unit Price	Amount	Total Amount	PURCHASE JOURNAL DESCRIPTION		
						Food Direct	Food Stores	Sundries
6	cases *	Green Beans	$1.80 per can	______ per case	__________			
7	cases *	Green Peas	______ per can	$10.98 per case	__________			
10	cases *	Corn, whole kernel	______ per can	______ per case	$109.20			
9	cases *	Peaches, halves	$2.68 per can	______ per case	__________			
100	lbs.	Sugar, white granular	______ per lb.	$15.00	__________			
100	lbs.	Flour, all-purpose	$0.12 per lb.	______________	__________			
60	lbs.	Strawberries, frozen	______ per lb.	______________	$36.00			
4	gal.	Pickle Relish	______ per gal.	$12.08	__________			
15	lbs.	Cheddar Cheese	$1.65 per lb.	______________	__________			
20	lbs.	Beef, ground	$1.33 per lb.	______________	__________			

* Each case contains 6 #10 cans

____
Grand Total

TA 5

Receiving Sheet

RECEIVING CLERK'S DAILY REPORT
VENDOR:

No. ____________________
Date ____________________

Quan.	Unit	Description	Unit Price	Amount	Total Amount	PURCHASE JOURNAL DESCRIPTION		
						Food Direct	Food Stores	Sundries
6	cases *	Green Beans	$1.80 per can	$10.80 per case	$64.80			
7	cases *	Green Peas	$1.83 per can	$10.98 per case	$76.86			
10	cases *	Corn, whole kernel	$1.82 per can	$10.92 per case	$109.20			
9	cases *	Peaches, halves	$2.68 per can	$16.08 per case	$144.72			
100	lbs.	Sugar, white granular	$0.15 per lb.	$15.00	$15.00			
100	lbs.	Flour, all-purpose	$0.12 per lb.	$12.00	$12.00			
60	lbs.	Strawberries, frozen	$0.60 per lb.	$36.00	$36.00			
4	gal.	Pickle Relish	$3.02 per gal.	$12.08	$12.08			
15	lbs.	Cheddar Cheese	$1.65 per lb.	$24.75	$24.75			
20	lbs.	Beef, ground	$1.33 per lb.	$26.60	$26.60			

* Each case contains 6 #10 cans

$522.01
Grand Total

TA 5—Answer Key

TA 6

Single Layer Chocolate Cake

Ingredients:

110 g.	Cake Flour
1.8 g.	Baking Powder
1 g.	Soda
1.5 g.	Salt
100 g.	Sugar
48 g.	Shortening
118 ml.	Buttermilk
48 g.	Egg
28 g.	Unsweetened Chocolate
1.2 ml.	Vanilla

Directions:

1. Preheat oven to 350°F.
2. Measure each ingredient accurately.
3. Sift together flour, baking powder, soda, salt, and sugar. Place in mixing bowl and add shortening, melted chocolate, and 80 ml. milk.
4. Beat at low speed for one minute and medium speed for one minute. Stop mixer and scrape the side of the bowl.
5. Add egg and remaining milk. Beat at medium speed for two minutes.
6. Pour into one eight inch round cake pan lined with greased waxed paper. Give the pan several sharp raps on the counter before placing in oven to remove large air bubbles.
7. Bake for 20-25 minutes.
8. Let stand in pan for five to eight minutes before removing to cooling rack.

Adapted from *Food and Nutrition 4360, Experimental Methods with Food.* Lubbock, TX: Texas Tech University, Dr. Helen Brittin, Professor. 1993.

Food Portioning

Peter works in the kitchen at Big Russell's, a barbecue restaurant. He fills plates with food. He has been instructed to use a #10 scoop, which yields 3 1/2 oz. portions, for the potato salad. On this particular day, the #10 scoop was not in its usual place, and Peter really did not want to take the time to find it. He decided it wouldn't be a big deal to use the #6 scoop, which yields 5 oz. portions. On average, the restaurant uses 20 lbs. of potato salad a day produced in 5 lb. containers which cost $2.89 each. Using the amounts given in this problem, calculate the following:

1. **the number of servings Big Russell's gets from 20 lbs. of potato salad using a #10 scoop**

2. **the cost per serving using a #10 scoop**

3. **the number of servings Peter got from 20 lbs. of potato salad using a #6 scoop**

4. **the cost per serving using a #6 scoop**

5. **the difference in the number of servings from a #10 scoop and a #6 scoop**

6. **the difference in the price per serving between a #10 scoop and a #6 scoop**

7. **How much did Peter's error cost Big Russell?**

8. **If this error was made for one week, how much would it cost the restaurant? for one month?**

TA 8

Basic Body Mechanics Terms

Body Mechanics	the method of standing and moving one's body to prevent injury, avoid fatigue, and make the best use of your strength.
Base of Support	placement of feet to provide a stable balance. (1) Place feet about six to eight inches apart (see figure 1) with knees bent. (2) Place feet about six to eight inches apart with one foot a half step ahead of the other (see figure 2) to make a larger support base and a more stable balance that allows you to reach farther.

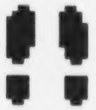


Figure 1

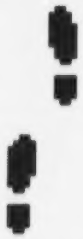


Figure 2

Center of Gravity	the point that gives the lifter the greatest control over the object with the least amount of effort. A person's center of gravity is around the pelvic area.
Balancing	lower your center of gravity (the pelvic area) by spreading feet apart and bending knees.
Strongest Muscles	muscles that bend the joints, which is why one should bend knees and hips; the longer, thicker, stronger muscles are found in the shoulder, upper arm, hip, and thigh.
Weaker Muscles	muscles that control the spine. Back muscles are for flexibility—not heavy work.

The LIFTING Process

1. Place the feet firmly on the floor with the feet spread apart.

2. Squat, keep the back as straight as possible, and get a good grip on the object.

3. Lift slowly, pushing up with the thigh and leg muscles.

4. Do not jerk the object upward or twist the trunk of your body while lifting.

5. To lower an object reverse the procedure.

CATERING GUIDELINES

Part A: Procedures to follow in packing catering utensils and equipment for transport.

Part B: Techniques for transporting food to maintain quality.